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**KLINIČKO BOLNIČKI CENTAR
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UPUSTVO ZA AUTORE

Frequency and method of term and preterm twin deliveries and their vitality in general Hospital Novi Pazar in period 2009 – 2013

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Abstract

The aim of this paper is to analyze the method of term and preterm deliveries of twin pregnancies and vitality of twins at birth. The development of two fetuses in the uterine cavity at the same time is considered a twin pregnancy. Today, due to more often examination and proper treatment, 50% of twin pregnancies end in preterm delivery. We used retrospective study to analyze the delivery method and vitality of twins born term and preterm at Gynecology and Obstetrics Department of General hospital Novi Pazar in the five-year period, from 2009 to 2013. There were 10.489 deliveries in the said five-year period. Out of this number, 118 pregnancies were twin pregnancies and they amount to 1.12% of all deliveries which is in line with world's standards. About 73% of deliveries were term and 27% were preterm twin deliveries. The analysis of twin vitality showed that first-born twins at both term and preterm deliveries are more vital and in better condition. Second-born twins are generally born with lower Apgar score. Due to liberalization for caesarean section indication, a great number of twin deliveries end in caesarean section.

Key words: twin pregnancy, delivery, vitality of twins.

Učestalost i izbor metoda porođaja kod terminskih i pretermijskih blizanaca u Opštoj bolnici Novi Pazar tokom 2009 - 2013.

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Apstrakt

Cilj ovog rada je da analizira metodu porođaja terminskih i pretermijskih blizanačkih trudnoća i proceni vitalnost blizanavca na rođenju. Razvoj dva fetusa u materičnoj šupljini istovremeno se smatra dvostrukom trudnoćom. Danas, zbog češćih pregleda i pravilnog lečenja, 50% dvostrukih trudnoća završava sa prevremenim porođajem. Koristili smo retrospektivnu studiju kako bismo analizirali način porođaja i vitalnost blizanacana Odeljenju za ginekologiju i akušerstvo Opšte bolnice Novi Pazar u petogodišnjem periodu od 2009. do 2013. godine. U navedenom petogodišnjem periodu bilo je 10.489 porođaja. Od ovog broja, 118 trudnoća su bile dvostruke trudnoće i one čine 1,12% svih porođaja što je u skladu sa svetskim standardima. Oko 73% porođaja je bilo terminsko, a 27% su bile blizanačke trudnoće. Analiza je pokazala da su prvi rođeni blizanci u oba bili vitalniji i u boljem stanju. Drugi blizanci su uglavnom rođeni sa nižim rezultatom Apgar-a. Zbog liberalizacije za indikaciju carskog reza, veliki broj dvostrukih trudnoćase završava carskim rezom.

Ključne reči: dvostruka trudnoća, porođaj, vitalnost blizanaca.

Introduction

The development of two fetuses in the uterine cavity at the same time represents a twin pregnancy. On average, there is one twin pregnancy to 80-90 deliveries. Twin pregnancy is characterized by:

- A large number of complications related to gestation and delivery,
- Often operative delivery,
- Several times higher fetal perinatal morbidity
- Genetic testing of twins depending on the external factors, constitution and hereditary factors.

Frequency of twin pregnancies is about 1.15% compared to all other pregnancies.

It should be particularly stressed that earlier 75-80% of multiple pregnancies ended in preterm delivery, gestation shorter than 37wg. With introduction of strict examination and proper treatment, preterm deliveries of this type are significantly lowered and amount to about 50% for twin pregnancies. The duration of pregnancy proportionally decreases with the number of fetuses. Singleton pregnancy lasts 39wg on average, pregnancy with two fetuses 35wg, pregnancy with three fetuses 33wg, and pregnancy with four fetuses 29wg. Neonatal mortality in preterm born twins is higher for pregnancies shorter than 32wg, and twin weight lower than 1500 grams. Death of twins is higher with smaller weight (1000 gr – about 70% mortality, 600 gr - about 80%). Taking into account that about 50% of twin pregnancies today end in preterm delivery, it is especially important to pay attention to the early diagnosis, better monitoring and optimal treatment of twin pregnancies. A pregnant woman needs to be informed about pregnancy and delivery process. Twin pregnancy delivery mostly ends vaginally, spontaneously, or with obstetrics interventions. However, in the last several years, indications for caesarean section are becoming more liberal and less selective so that preterm delivery of twin pregnancy often ends in caesarean section.

Vaginal delivery of twin pregnancy is characterized by slow and long-lasting dilation phase (15-20h) because of overstretched uterine musculature and transition of strength to the other fetus. Dilation in preterm deliveries, with preterm premature rupture of membranes, has spasmodic course, which always demands quick and proper therapy (analgesics, sedation, spasmolytic).

Expulsion is generally easy and quick, especially when fetus weight is lower and when the first fetus is in vertex position. Gynecologist's role in the first twin vertex position delivery is mostly "passive", while the delivery of the second twin demands active participation due to frequent complications. The delivery of the first twin mostly has the same mechanism as the delivery in one fetus pregnancy.

The delivery of the second twin may be easy and simple, but it could also be complicated. After the expulsion of the first twin, it is necessary to perform amniotomy, determine the position and presentation of the second twin by examination and use the outside hand to fix the head or pelvis into the pelvic entrance. If the second twin tones are normal, there will be expulsion in 20-30 minutes. If the tones are bradycardic, presentation inadequate, if severe bleeding occurs, the delivery ends by the internal rotation and fetus extraction. With head obstruction, the delivery is terminated by forceps or smaller doses of syntocinon. The delivery of the second twin may be with difficulties if the second twin is heavier than the first and if the period from expulsion is longer. If the first twin is in the upright position and the second in transverse lie, the first one is born with usual mechanism and the transverse lie one by internal rotation and extraction.

Caesarean section delivery

Absolute indications for caesarean section are:

1. Umbilical cord prolapse of the first twin,
2. Transverse position of twins,
3. Pelvic presentation of the first or both twins,

4. Twin collision
5. Placental abruption.

Relative indications for caesarean section are: bigger and heavier second twin who is, same as the first twin, in breech presentation, EPH gestosis, asphyxia. In the last few years, there is a tendency for twin pregnancies with twins weighing between 1500 and 2000 grams to be terminated in caesarean section.

The aim of this paper is to analyze frequency, term and preterm twin delivery method and twin vitality at birth.

Materials and methods

We used retrospective study to analyze frequency, twin pregnancy delivery method and vitality of twins born term and preterm at Gynecology and Obstetrics Department of General hospital Novi Pazar in the five-year period, from 2009 to 2013.

We analyzed: Total number of deliveries and total number of twin deliveries, ratio of the number of twin pregnancies ended in term to preterm deliveries, method of term and preterm twin deliveries, twin vitality, i.e. Apgar score, of term and preterm twins, as well as, vitality of twin I and twin II from term and preterm twin delivery.

Results

In the five-year period, from 2009 to 2013, there were 10.489 deliveries in total. Out of this number, there were 118 twin deliveries or 1.12%. The frequency of twin pregnancy is about 1.15% compared to all other pregnancies (Table 1.)

Year	Total number of deliveries	Total number of twin deliveries
2009	2170	29
2010	2174	17
2011	2030	27
2012	2115	24
2013	2000	21
Total	10 489	118 1.12%

Table 1. Ratio of the total number of deliveries to the total number of twin deliveries

There were 86 twin pregnancies ended in term delivery, which is 0.82% of the total number of deliveries, i.e. 72.9% of the total number of twin deliveries. There were 32 preterm twin deliveries, which makes 0.3% of the total number of deliveries, i.e. 27.1% of the total number of twin deliveries. The largest number of twin deliveries ended in term delivery while there were significantly fewer twin pregnancies which ended in preterm delivery (Table 2.).

Year	Total number of deliveries	Total number of twin deliveries	Number of twin deliveries ended in:					
			1. term delivery			2. preterm delivery		
2009	2170	29	24			5		
2010	2174	17	11			6		
2011	2030	27	19			8		
2012	2115	24	16			8		
2013	2000	21	16			5		
Total	10 489	1.12% 118	0.82% 86	72.9%		0.30% 32	27.1%	

Table 2. Ratio of the number of twin pregnancies ended in term to preterm deliveries

There were 86 twin pregnancies in total which ended in term delivery. Out of that number, 46 pregnancies or 53.5% ended in vaginal delivery, while 40 pregnancies or 46.5% ended in caesarean section (Table 3.).

Year	Number of term twin deliveries	Vaginal		CC	
2009	24	16		8	
2010	11	7		4	
2011	19	6		13	
2012	16	8		8	
2013	16	9		7	
Total	86	46	3.5%	40	46.5%

Table 3. Method of term and preterm twin deliveries

The total of 32 twin pregnancies ended in preterm delivery (Table 4.). Out of that number, 50% ended in vaginal delivery and 50% ended in caesarean section. We can conclude that there were insignificantly more term twin pregnancies which ended in vaginal delivery.

Year	Number of preterm twin deliveries	Vaginal	CC
2009	5	2	3
2010	6	4	2
2011	8	4	4
2012	8	4	4
2013	5	2	3
Total	32	16 50%	16 50%

Table 4. The total of 32 twin pregnancies ended in preterm delivery

Apgar score at birth of the first term twin is higher, on average, from Apgar score of the second term twin, which implies that the first twin is in better condition at birth, more vital, i.e. the second twin is more endangered at the delivery (Table 5.).

Year	Average Apgar score	
	I twin	II twin
2009	8.75	8.58
2010	8.64	8.64
2011	8.47	8.32
2012	8.56	7.00
2013	8.62	8.56
Average Ap	8.61	8.22
Average Ap for both twins	8.415	

Table 5. Twin vitality, i.e. Apgar score, of term and preterm twins

Average Apgar score of the first and second preterm twin in the mentioned five-year period is almost the same which means that preterm twins are born with the same Apgar score i.e. are of the same vitality (Table 6.).

Year	Average Apgar score	
	I twin	II twin
2009	7.4	7.0
2010	7.33	7.16
2011	7.87	8.12
2012	7.00	7.75
2013	8.4	7.8
Average Ap	7.6	7.56
Average Ap for both twins	7.58	

Table 6. Average Apgar score of the first and second preterm twin

Term twins are significantly more vital, i.e. with significantly higher Apgar score in comparison to preterm twins. Also, first-born twins, both from term and preterm pregnancies, are on average more vital than second-born term and preterm twins. Highest vitality is noticed in the first term twins, and lowest in the second preterm twins.

Discussion

The development of two fetuses at the same time in the uterine cavity is considered a twin pregnancy. Today, one twin pregnancy occurs in 80-90 deliveries on average. Frequency of twin pregnancies is about 1.15% in the world. Frequency of twin pregnancies in our country in the said five-year period was 1.12% which is in line with world's standards. Twin pregnancies are considered high-risk pregnancies due to a large number of complications during gestation and delivery, often operative delivery, higher neonatal morbidity and higher mortality, especially with preterm born twins. In the analyzed five-year period, there were 10.489 deliveries. Out of the total number of deliveries, 118 pregnancies were twin pregnancies which is in line with world's trends and gives frequency of 1.12%. Out of the total number of twin pregnancies, 86 pregnancies or 73% ended in term delivery, while 32 pregnancies i.e. 23% ended in preterm delivery.

Significant number of term twin deliveries, 53.5%, ended vaginally while 46.5% ended in caesarean section. Preterm twin deliveries ended vaginally in 50% of the cases, and in caesarean section in 50%. Today, we could say that every delivery of the first time mother with twins, term or pre term, with breech or leg position of the first twin, ends in caesarean section. Vitality of twins is not the same. First-born twins, term or preterm, have better Apgar score at birth, which implies that they are more vital, in better condition. Second-born twins have lower Apgar score on average, are less vital or better said they are in worse condition at birth. The delivery of the second twin, term or preterm, lasts longer on average, they are in poorer condition and their delivery often ends operatively. The best score at birth is noticed with first-born twins from term pregnancies and the worst for second-born twins from preterm pregnancies. The largest number of twin pregnancies ends in 35wg.

Conclusion

Twin pregnancies which end in term and preterm delivery, in comparison to the total number of deliveries

in the five-year period from 2009 to 2013, make 1.12% of all deliveries. Frequency of twin pregnancies in the total number of deliveries is 1.15%. Significant number, 54%, of term twin pregnancies ended vaginally in 37wg, while 46% ended in caesarean section. On the other hand, 50% of preterm twin pregnancies ended vaginally, and other 50% in caesarean section which is in line with world's trends. Indications for caesarean section were mostly breech or leg position of the first twin. Great number of pregnancies with breech position of the first twin and breech position of the second twin ended vaginally, which is not in trend today. Now, all I/R with breech presentation, singleton or multiple pregnancies, end in caesarean section. First-born twins are more vital, in better condition with higher Apgar score. Second-born twins are in poorer condition. Their Apgar score is lower on average, i.e. they were in poorer condition at birth. The delivery of the second twin is often with complications and ends operatively. Preterm twin pregnancies usually end in 35wg. Key indications for preterm twin delivery are PPROM, EPH gestosis, asphyxia.

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Intracranial and chest bullets retained for 35 years - "luck's always to blame"

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Abstract

Head gunshot injuries are usually fatal. Elderly patients may have survived penetrating head injuries, since old bullets with lower velocity produce much less damage to brain tissue. We report a case of elderly male patient with mild head injury due to accidentally fall. Patient died a few hours after admission to Emergency Department. Autopsy finding showed one strayed projectile in the posterior horn of left lateral ventricle and one in the soft tissue of right VIII intercostal space. Later we obtained information that patient suffered multiple gunshot wounds about 35 years earlier. However, the cause of death was deterioration of long-term and severe hypertensive and atherosclerotic heart disease.

Key words: gunshot injury; head injury; chest injury

Introduction

Today, gunshot injury to the head is usually fatal, due to the destructive energy of high-velocity missiles¹. However, elderly citizens may have survived penetrating head injuries, since old bullets with lower velocity produce much less damage to brain². Transmediastinal and thoracic gunshot wounds are also highly lethal injuries requiring thoracotomy surgery in most cases. We present a case of elderly male patient suffering from dementia, presented to the Emergency Department (ED) following head injury due to accidentally fall, three days earlier. No signs of head or body gunshot wounds were noticed. Patient died a few hours after admission to ED. Autopsy finding revealed one strayed projectile in the posterior horn of left lateral ventricle and one in the soft tissue of right VIII intercostal space. Later we obtained information that patient suffered multiple gunshot wounds 35 years earlier. However, the cause of death was deterioration of long-term and severe hypertensive and atherosclerotic heart disease.

Projektili zaostali u glavi i grudnom košu 35 godina – „kriva je sreća“

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Apstrakt

Povrede glave u vidu ustrelina najčešće su smrtnosne povrede. Pacijenti su ranije preživljavali ustrelne povrede glave, jer su tada korišćeni projektili sa manjom brzinom nanosili i manje oštećenje tkivu mozga. Prikazujemo slučaj starijeg muškarca koji je zadobio blagu povredu glave prilikom zadesnog pada. Pacijent je umro nekoliko sati nakon prijema u odeljenje za hitne slučajeve. Nalaz obdukcije pokazao je jedan zaostali projektil u zadnjem rogu leve bočne komore i jedan u predelu mekih tkiva desnog VIII međurebarnog prostora. Naknadno je dobijena informacija da je pacijent zadobio višestruke ustreline oko 35 godina ranije. Međutim, uzrok smrti bio je pogoršanje dugotrajnog i teškog srčanog oboljenja na bazi povišenog krvnog pritiska i ateroskleroze.

Ključne reči: ustreline; povrede glave; povrede grudnog koša

Case Report

A 82-years-old patient with a history of severe dementia was admitted to ED following head injury due to accidentally fall in the nursing home, three days earlier. On initial evaluation he was conscious, obeying commands with signs of dementia and spastic hemiparesis on the left side. No signs of head and body trauma were found. Patient was immediately examined by a general surgeon, neurologist and a neurosurgeon. Breath sounds were present bilaterally, and there was no evidence of subcutaneous emphysema. A chest X-ray showed a bullet in the projection of right VIII intercostal space (Figure 1). On the way to emergency trauma-all-body CT scan the patient suffered a sudden deterioration of consciousness and cardio-respiratory arrest. He was unsuccessfully reanimated, and a few hours upon admission patient died. At autopsy one strayed projectile was found in the posterior horn of left lateral ventricle (Figure 2) and one was found in the soft tissue of right VIII intercostal space (Figure 3). Both missiles were rusty and markedly corroded. The intracranial projectile was deformed (Figure 4a), while the original shape of the intercostal space bullet was preserved (Figure 4b). The bullet trajectory through the skull and brain was reconstructed: in the front third of the right parietal bone, a circular 20 mm diameter skull defect covered with thickened meninges was observed. Further on, from the upper side of the right parietal lobe of the brain at about 2 cm to the right of the median longitudinal line the channel direction extended from the top down, from right to left and from front to back through the right brain hemisphere, ending in the posterior horn of left lateral ventricle (Figure 5). The projectile found in the chest wall did not hit vital organs of the victim's thorax. No entry wound was found. Autopsy report revealed natural cause of death due to rapid deterioration of long-term and severe hypertensive and atherosclerotic heart disease. Later on, the patient's family confirmed that he suffered multiple gunshot wounds 35 years earlier. No other details were known.

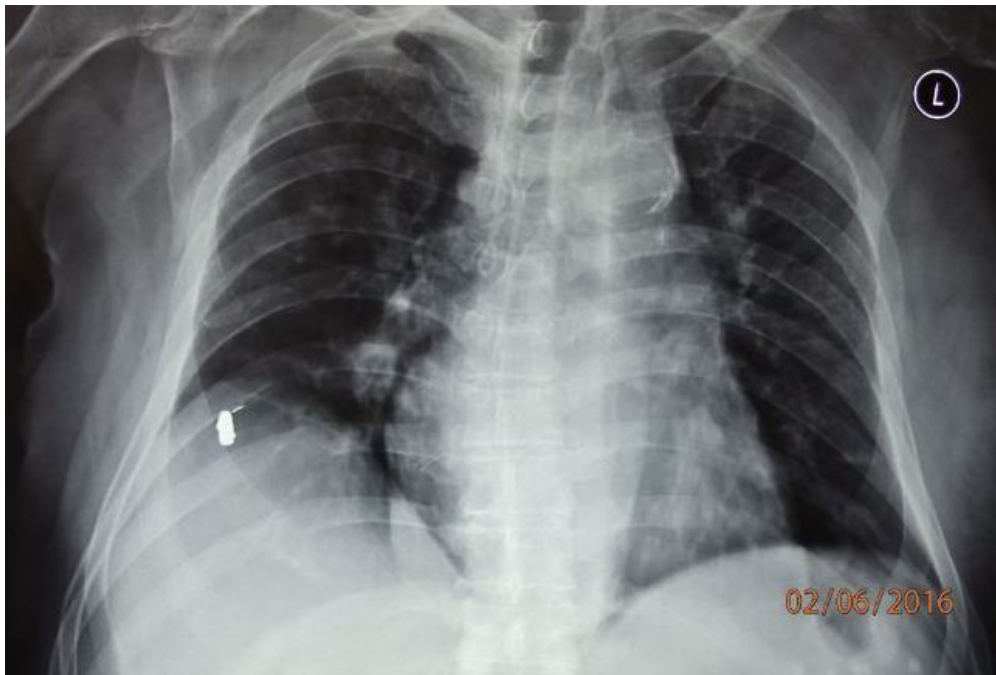


Figure 1. Chest X-ray showing a bullet in the projection of right VIII intercostal space



Figure 2. Projectile located in the posterior horn of left lateral ventricle (autopsy finding)



Figure 3. Projectile located in the soft tissue of right VIII intercostal space (autopsy finding)

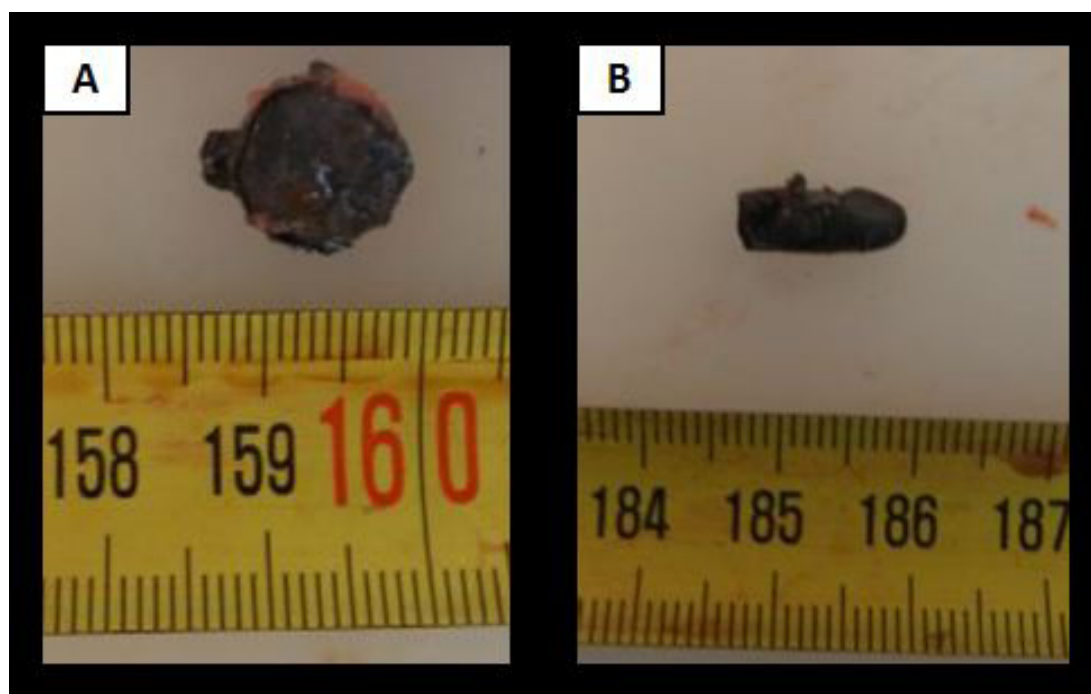


Figure 4. Deformed intracranial projectile (a). Preserved projectile from the intercostal space (b).



Figure 5. Reconstrucion of bullet trajectory through the skull and brain

Discussion

Head gunshot injuries are one of the most deadly traumas³. About 90% of victims die before arriving at the hospital, and for those who endure and make it to the hospital, about one half die in the ED^{3, 4}. Civilian head gunshot injuries most frequently inflicted by low-velocity and small-caliber projectiles, which cause less damage than those with high-velocity projectiles used in war conditions⁵. Transmediastinal and thoracic gunshot wounds are associated with a high mortality and frequently require operative intervention via thoracotomy⁶. We present a case of a male patient who suffered two gunshot wounds, the one in the head, and one in the chest, 35 years prior to admission to ED. There was no sign of surgical intervention, and patient survived these injuries with only left sided spastic hemiparesis. Penetrating wounds of the thorax caused by a gunshot or explosion are associated with multiple complications such as atelectasis, obstructive pneumonitis, hemothorax or pneumothorax, and local infection. The delayed complication is calcific fibrothorax. A foreign body in the pleural cavity may cause chronic empyema⁷. Our patient didn't have any signs of mentioned complications, but it should be taken into account that projectile was found in the chest wall, and not in the lung parenchyma.

There are many reports of different foreign objects retained in the brain for long time without any symptoms⁸. Complications of head injuries and retained foreign bodies can be classified as early (during the first 7 days after wounding) or late (after that period). Postoperative infections, hematomas, epileptic seizures, and cerebrospinal fluid fistulas are counted among the early complications. On the other hand, foreign body's migration, epileptic seizures, infections, hydrocephalus and rarely tumor development represent late complications⁹. Our patient only had mild spastic hemiparesis on the left side, without signs of other early and late complications.

Since both mentioned injuries are deadly in most of cases, the long term survival of our patient was an exceptional finding: "luck's always to blame" (Jean de La Fontaine).

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Učestalost preponske kile u dece

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Apstrakt

Cilj: utvrditi učestalost ingvinalne kile u dece od rođenja pa do navešene 15 godine.

U period od 2010. do 2014. godine, na odeljenju dečije hirurgije Z Novi Pazar operisano je 401 dece od preponske kile od strane tri dečija hirurga. Retrospektiva analiza njihovih grafikona i tabela je sprovedena radi procene kliničkih aspekata operisanih pacijenata. U starosti se kretale od 20 dana do 15 godina sa muško-to-ženska odnosu 2,5: 1. 64,9% u pravu, 27,1% levo, a 7,9% bilateralni kile. Hidroceles bili prisutni u 6,2% asociated kile. Zatvaranje desilo u 8,7% dece. Suprotnoj strani hernija razvijen u 5,7%. 5,3 odsto pacijenata sa kile na desnoj strani kasnije razvio kilu na levoj strani, a 8,2% pacijenata sa kile na levoj strani kasnije razvio jedan na desnoj strani. 4,5 odsto svih muškaraca obolelih u ovoj seriji i 8,6% od pacijentkinja razvio naprotiv-side kilu. Dok ukupna stopa recidiva je 1,2%, naša stopa recidiva je 0,25%. Bilo je infekcija stopa 0,24%, a 1 (0,24%) testis je atrofični na praćenje. U ovoj studiji, smo pokazali da u odnosu na druge studije jako je važno da pedijatrijske pacijente operisu isključivo pedijatrijski hirurzi jer je broj postoperativnih komplikacija i recidiva kile jako mali. Obzirom da se recidivi i pojave kile na kontralateralnoj strani javljaju najviše u prvih 6 meseci nakon operacije, bitno je češće decu kontrolisati u tom periodu.

Ključne reči: Dečja ingvinalna kila, recidiv, procesus vaginalis, operacija

Uvod

Preponski kila je najčešća indikacija za operaciju u pedijatrijskoj starosnoj grupi i učestalost preponske kile u tim mlađi od 18 godina varira od 0,8 do 4,4%¹. Svi pedijatrijski ingvinalni kile zahtevaju operativno lečenje da bi se sprečio razvoj komplikacija, kao što su inkarceracija, ili strangulacija². Danas, operacija preponske kile je jedna od najčešćih pedijatrijskih operacija koje se izvode. Većina kila koje su prisutne na rođenju ili u detinjstvu su indirektno ingvinalne kile. Iako tačna učestalost indirektnih ingvinalnih kila kod odojčadi i dece je nepoznata, učestalost se kreće od 1-5%. Šezdeset odsto kila javlja se na desnoj strani.

The incidence of inguinal hernia in children

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Abstract

In this manuscript we report one pediatric surgeon's experience in childhood inguinal hernia repair. From 2005 to 2008, 402 children with inguinal hernias were operated on by one surgeon. A retrospective survey of their charts was carried out to evaluate the demographics and clinical aspects of these patients. The ages ranged from 20 days to 16 years with a male-to-female ratio of 2.5:1. 64.9% right, 27.1% left, and 7.9% bilateral hernias. Hydroceles were present in 6.2% associated hernias. Incarceration occurred in 8.7% of children. An opposite-side hernia developed in 5.7%. 5.3 percent of patients with a hernia repair on the right side later developed a hernia on the left side, and 8.2% of patients with a hernia repair on the left side later developed one on the right side. 4.5 percent of all male patients in this series and 8.6% of female patients developed an opposite-side hernia. While overall recurrence rate was 1.2%, our recurrence rate was 0.25%. There was a 0.24% wound infection rate, and 1 (0.24%) testicle was atrophic at follow-up. In this study, in the recurrence of childhood hernia, the general surgeon's intervention was the prominent cause. It is suggested by the study that inguinal hernias on the contralateral side becomes symptomatic within the first six months following initial operation. Therefore, close observation is needed in that time.

Key words: pediatric inguinal hernia

Prevrneno rođena deca imaju povećan rizik za preponske kile, sa incidencom od 2% kod žena i 7-30% u muškaraca³. Oko 5% svih muškaraca razvije kilu tokom svog života. Inkarceracija ili strangulacija ingvinalne kile može dovesti do ozbiljnih komplikacija, čak i do smrti. Inkarceracija ili strangulacija ingvinalne i / ili femoralne kile takođe može dovesti do značajnih posledica, zavisno od toga koja je visceralna struktura uključena u kilnoj kesi. Naši rezultati su proseku u korelaciji sa podacima iz literature, a nisku i incidencu recidiva objašnjavamo time da u sva deca u našoj seriji operisana isključivo od strane dečijeg hirurga.

Materijal i metod

Retrospektivna analiza uradjena je za period od januar 2010. decembr 2014. godina i obuhvatila je svu decu uzrasta do 15 god. sa simptomima i znacima preponske kile koja je operisana na dečijoj hirurgiji ZC Novi Pazar od strane isključivo tri dečija hirurga. Operativni postupak (sve u opštoj anesteziji) je isti u celoj seriji: porečni rez, /modifikovana Ferguson tehnika/, visoka ligature kilne kese, apsorpcioni šavovi. Kao osnov za analizu podataka koristila nam je istorija bolesti i nalazi hiruškog lečenja (protokol). U studiju su uključena samo deca sa preponskom kilom bez pratećeg kriptorhizma i hidrocele. Skoro sve operacije kila rađene su kao ambulantno/istog dana deca otpustana kući/. Svi pacijenati su postoperativno kontrolisani nakon 1 i 6 meseci.

Retrospektivna analiza sve operisane dece obuhvatila je njihovu starost, pol, tip ingvinalne kile, stranu hernije, inkarceraciju, recidiv kile, pojavu kile sa suprotne strane.

Rezultati

U uzrasta sa rasponom od 20 dana do 15 godina odnos muško-žensko je bio 3,9:1. 58.6% su desnostrane, 34,9% levostrane, a 6,5% bilateralni kile (Tabela 1). Uklještena kila je bila prisutna u procentu od 7,5 %. Distribucija ingvinalne kile u odnosu na uzrast dece bila je sledeća: od 0-12 meseci bilo je 54 dece/13,5%/, od 12 mes. - 2 god. 68 dece /16,95%/, od 2 - 5 god. 150 dece /37,4%/, od 5 - 7 god. 66 dece/16,5%/, od 7 - 15 god 63 dece /15,75%/. Kad je u pitanju učestalost uklještenih kila u odnosu na pol, zahvacenu stranu i starost deteta desna strana je bila zastupljena sa 20 dece /19 M i 1 Ž\ a leva strana 10 / 8 M I 2 Ž/. Nakon operacije desne preponske kile 7,3 % pacijenata kasnije razvilo je kilu na levoj strani, a 9,3% pacijenata nakon operacije leve preponske kile kasnije razvilo je kilu na desnoj strani. Od svih muških pacijenata 4,5% u ovoj seriji i 8,6% ženskih pacijenata razvilo je kilu na suprotnoj strani. Iako se ukupna stopa kreće oko 1,2%, naša stopa recidiva je bila 0,85%. Bilo je 0,44% postoperativnih infekcija rane.

Pol	Zahvaćena strana		
	desno	levo	obostrano
M	196	113	11
Ž	39	27	15
Ukupno	235	140	26

Tabela 1. Distribucija ingvinalnih kila po godinama u odnosu na pol detete

Godina	Pol	
	muški	ženski
2010	68	17
2011	76	18
2012	78	20
2013	59	18
2014	61	8
Ukupno	320	81

Tabela 2. Distribucija ingvinalnih kila po polu u odnosu na zahvaćenu stranu

Godina	0-12 meseci	12mes.-2 god.	2-5 godina	5-7 godina	7-15 god
2010	15	17	24	14	12
2011	10	12	48	14	14
2012	13	13	20	17	16
2013	10	11	26	13	14
2014	6	15	32	6	7
Ukupno	54	68	150	66	63

Tabela 3. Distribucija ingvinalne kile po godinama u odnosu na starost dece

Pol	Zahvaćena strana		
	desno	levo	obostrano
M	19	8	
Ž	1	2	
Ukupno	20	10	

Tabela 4. Učestalost uklještene kile u odnosu na pol, zahvaćenu stranu i starost deteta

Diskusija

Učestalost pedijatrijskih preponski kila po raznim autorima u literaturi je između 0,8% i 4,4% sa 30% u prematurusa. Muško-ženski odnos u našem istraživanju ide od 3,9:1 što je u skladu sa navodima u literaturi od 3:1 do 10:1^{4,5}. Sva deca prikazana u ovoj seriji si imala indirektnu preponsku kilu.

Nalaz 58,6% kila sa desne strane, 34,9% na levoj, a 6,5% obostranih kila je u korelaciji sa nalazima drugih autora⁶. Najveći procenat imkarceracija je bio u uzrastnoj grupi do 12 meseci. Pojava spontanog nezatvaranja u nedonoščadi tokom perioda čekanja može biti u vezi sa relativno većom veličinom unutrašnjeg ingvinalnog prstena i slabosti abdominalne muskulature.

Primetno je da se najveći broj operisane dece nalazi i uzrastnoj grupi od 2-5 god. To se u našoj sredini može objasniti nedovoljnom edukacijom roditelja koji se plaše operaciju u još mlađem uzrastu i izbegavanju anesteziologa da rutinski uvode mlađu decu naročito se ti odnosi na decu mlađu od godinu dana.

Nakon operacije desne preponske kile 7,3 % pacijenata kasnije razvilo je kilu na levoj strani, a 9,3% pacijenata nakon operacije leve preponske kile kasnije razvilo je kilu na desnoj strani. Od svih muških pacijenata 4,5% u ovoj seriji i 8,6% ženskih pacijenata razvilo je kilu na suprotnoj strani^{7,8,9}.

Neki autori smatraju da u oko 40% dece processus vaginalis može postati klinički manifestna kila¹⁰. To znači da će 20% dece starije od 2 godine razviti ingvinalne hernije tokom života, ali preostalih 20% će živeti sa neobliteriranim procesusom vaginalisom a da neće nikada dobiti klinički manifestnu kilu. Grej i Skandalakis su utvrdili da je na autopsiji, samo 5% odraslih imalo potentni processus vaginalis, koji nikada nije bio klinički očigledan. Smatra se da većina (78,2%) dece dobiju nakon prvih šest meseci i kilu na kontralateralnoj strani¹¹.

Stopa recidiva u našoj seriji od (0,85%) je relativno niska u odnosu na onu u literaturi od 0% i 3,8%¹³. To je verovatno zato što su sva deca u našoj seriji operisana isključivo od strane dečijeg hirurga. Pošto je stopa recidiva najveća u prvih šest meseci nakon operacije, preporučujemo deca kontrolu operisane dece u prvih šest meseci nakon operacije. Naši rezultati su u proseku u korelaciji sa podacima iz literature, a nisku incidencu recidiva objašnjavamo time da su sva deca u našoj seriji operisana isključivo od strane dečijeg hirurga.

Zaključak

U ovoj studiji, smo potvrdili da je, ispitivanje preponskih kila po svim parametrima u približnoj korelaciji sa podacima iz relevantne literature osim niže incidence recidiva u našoj seriji. Potvrdili smo da se pojave kila sa kontralateralne strane nakon operacije uglavnom ispoljava u prvih šest meseci.

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Indirect laryngoscopic surgery for benign vocal fold lesions: a preliminary report

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Abstract

The current practice for removal of benign vocal fold lesions is microlaryngoscopy under general anaesthesia. The technique provides excellent magnification with use of operating microscope and enables the surgeon to work with both hands at the same time. However, in certain cases the technique of indirect laryngoscopic surgery under local epimucous anaesthesia can be used as an alternative. In this article we will give the brief historic perspective of the procedure, indications and technical description, as well as its advantages and limitations. Given the fact that technique is not widely accepted by otolaryngologists, the author will also share some personal remarks on this relatively simple procedure.

Keywords: vocal fold lesions, indirect laryngeal surgery, microlaryngoscopy, laryngeal neoplasms

Introduction

Benign vocal fold lesions (BVFL) are commonly seen in otolaryngologic practice. True benign tumours of the vocal folds, except papilloma, are rare.¹ Pseudotumours of the vocal folds are much more frequently encountered in clinical practice and they usually appear secondary to the functional trauma to the vocal folds, chronic inflammation or combination of the two.² Some of these lesions will favourably respond to conservative treatment, such as voice therapy, smoking cessation or anti reflux medications, but most of them will require some form of surgery.³ Various techniques are available at laryngologist's disposal, the one most used being the direct microlaryngoscopy in general anaesthesia.^{4,5} In selected patients, indirect laryngoscopic surgery in local anaesthesia can also be used.

Materials and methods

A total of 318 patients with BVFLs were treated surgically at Department of Otorhinolaryngology with Maxillofacial Surgery from January 2011 to June 2016. Three hundred and six patients were operated using the standard microlaryngoscopy in general anaesthesia, while twelve patients were operated using the indirect laryngoscopic technique in local anaesthesia. The distribution of pathology and the procedure used is shown in table 1. For removal of BVFLs in general anaesthesia, we use the laryngeal exposure as described by Kleinsasser⁴ and removal of vocal fold pathology using the microsurgical technique described by Bouchayer.⁵ After placing the smallest possible endotracheal tube by anaesthesiologist and positioning the patient's

Indirektna laringoskopska hirurgija benignih lezija glasnih žica: preliminarno saopštenje

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Apstrakt

Aktuelna metoda za uklanjanje dobroćudnih lezija glasnica na našem odeljenju je mikrolaringoskopija u opštoj endotrahealnoj anesteziji. Ova tehnika obezbeđuje odlično uveličanje pomoću operacionog mikroskopa i omogućava hirurgu da istovremeno operiše sa obe ruke. Ipak, u nekim slučajevima se kao alternativa može koristiti i indirektna laringoskopska hirurgija u lokalnoj epimukoznoj anesteziji. U ovom članku ćemo napraviti kratak istorijski osvrt na proceduru, indikacije i opis same hirurške tehnike, kao i njene prednosti i ograničenja. Imajući u vidu da ova tehnika nije široko prihvaćena od strane otorinolaringologa, autor će navesti i neka lična zapažanja u vezi sa ovom relativno jednostavnom tehnikom.

Ključne reči: lezije glasnica, indirektna laringealna hirurgija, mikrolaringoskopija, laringealne neoplazme

head in the so-called “sniffing” position (head extended on the neck, neck flexed on the body), the surgeon introduces the Kleinsasser’s directoscope (Karl Storz) to the laryngeal inlet, directly exposing the glottis and the vocal fold pathology. Under the 25x magnification provided by the operating microscope (Carl Zeiss Optron), the lesion is carefully grasped by straight micro-forceps (Karl Storz) through the directoscope and gently pulled medially in order to expose its attachment on the vocal fold, followed by complete excision using the tip-curved micro-scissors (Karl Storz). The patients to be operated by indirect laryngoscopic technique are seated as for routine otolaryngology examination. We use 10-percent lidocaine solution for anaesthetising the oropharynx, epiglottis with laryngeal inlet and vocal folds. We apply the anaesthetic by spraying the solution four to five times on ventral surface of tongue, soft palate and posterior wall of oropharynx each. We spray the larynx ten to fifteen times during the phonation, followed by additional application of the local anaesthetic by massaging the supraglottic structures with the curved cotton ball probe dipped in the anaesthetic solution (Fig. 1).



Figure 1. Brunnings curved cup forceps for indirect operations in larynx

Following the application of the local anaesthetic, the surgeon asks the patient to hold his/her own tongue with a piece of gauze, as for mirror laryngoscopy examination. The surgeon then simultaneously introduces the rigid 70- or 90-degree telarlaryngoscope (Karl Storz) with the non-dominant hand and the curved Brunnings cup forceps (Karl Storz) with the dominant hand in the patient’s oropharynx (Fig. 2).

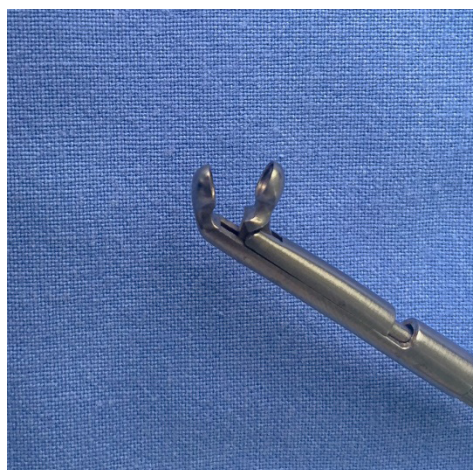


Figure 2. Interchangeable tip of the forceps magnified.

Under the visual guidance, the surgeon advances the tip of the forceps towards the vocal fold lesion, grasps it and removes in a single anterior to posterior motion (Figure. 3), respecting the vocal fold histologic structure.⁶



Figure 3. Position of the patient and surgeon during the procedure. Note the patient holding his/her own tongue while the surgeon introduces the rigid scope and Brunnings forceps.

The patients are discharged immediately after the operation, with nothing-by-mouth advice for the hour following surgery and voice rest instructions.

Results

We achieved optimal results using both surgical techniques. We operated various BVFLs using classic microlaryngoscopy technique, as shown in Table 1. We reserved indirect laryngoscopic surgery for smaller lesions which could be grasped and removed with single instrument (Figure 4.).



Figure 4. A - polyp of the right vocal fold (black arrow); B - introduction of the curved cup forceps into the laryngeal inlet; C - cup forceps gently grasping the polyp; D - right vocal fold after the polyp removal. Note the straight edge of the fold with no residual polyp tissue.

The improvement in voice quality was immediate and most apparent after operating the smaller lesions. The voice quality improved somewhat later in cases of diffuse, chronic oedemas, where complete epithelization of the larger surface of the vocal fold occurs several weeks after the operation. The relatively small number of the patients operated by indirect laryngoscopic technique is probably due to fact that most of these were performed during the author's residency and lack of his own outpatient clinic. The other reason might be the lack of subspecialised phoniatrics office in our centre, which would almost certainly provide larger load of patients with BVFLs.



Type of lesion	Microlaryngoscopy	Indirect laryngoscopy sugery
Polyp	147	12
Reinke' oedema	145	0
Granuloma	3	0
Vocal fold Cyst	5	0
Nodules	5	0
total	306	12

Table 1. Distribution of 318 patients operated for benign vocal fold lesions in CHC Zemun from January 2011 to June 2016.

However, the patients treated by indirect laryngoscopic surgery were satisfied with immediate voice improvement, short intervention time, no need for hospitalisation and workup for general anaesthesia. The complications were usually associated with the application of the topical anaesthetic. The patients reported a certain degree of anxiety and a “choking” sensation as a result of numbness of the throat. This is solved by simple verbal reassurance and instructing the patients to breathe through the nose, in order to convince them that there is no airway compromise. Two patients had excessive gagging even after the application of anaesthetic and were re-scheduled for the microlaryngoscopy.

Discussion

Benign vocal fold lesions represent a wide variety of laryngeal pathology and can be classified as true benign tumours and pseudotumours of the vocal folds. The benign tumours, except papilloma, are quite rare, and may be of epithelial (adenoma), mesenchymal (fibroma, leiomyoma, rhabdomyoma, lipoma, etc.), and neural origin (Schwannoma, paraganglioma, neurofibroma).^{1,2} Pseudotumours of the larynx are not true neoplasms, but represent lesions that arise secondary to functional trauma, chronic inflammation or specific infection. They may also be of metabolic origin.² Their macroscopic and microlaryngoscopic appearance is similar to true benign tumours, and correct diagnosis is often obtained only after histopathologic examination. Unlike benign tumours which can only be cured surgically, pseudotumours may also respond favourably to conservative treatment. However, majority of these lesions will eventually require surgery.³ The variable degree of hoarseness is the common and most dominant symptom in BVFLs and the main reason for otolaryngology referral. Hoarseness is a result of difference in mass and tension of the two vocal folds, change of the mechanical characteristics of the affected vocal fold and glottal insufficiency.² The degree of hoarseness and its influence on quality of life in patients can be measured using objective acoustic analysis in specialised voice labs, as well as self-assessment questionnaires. These analysis are related to subspecialist phoniatic units and are not routinely used.

Various types of surgical management of BVFLs have been described: microlaryngoscopy in general anaesthesia with cold instruments^{4,5} or CO₂ laser,^{7,8} office-based excision in local anaesthesia using flexible fiberoendoscope to deliver various lasers⁹ and indirect laryngoscopic surgery in local anaesthesia, using either mirror laryngoscopy in combination with the operating microscope,^{10,11} or rigid tele laryngoscope with stroboscopic light source.¹² The author used 90-degree rigid tele laryngoscope with cold light source, without stroboscopy. Microlaryngoscopy with cold instruments is considered as “a gold standard” in surgical management of BVFLs and is the preferred treatment at our department. However, the indirect technique in local anaesthesia can be used, when appropriate. There are advantages and limitations in both techniques,¹² and some of them are outlined in Table 2.

	Microlaryngoscopy	Indirect laryngoscopy surgery
magnification	+	
bimanual work	+	
hospitalisation&general anaesthesia		+
patient comfort	+	+
physiological setting		+
function monitoring		+
cost - effectiveness		+

Table 2. Advantages and limitations of microlaryngoscopy and indirect laryngoscopic surgery.

Microlaryngoscopy in general anaesthesia provides excellent visualisation of the endolarynx and enables the surgeon to operate bimanually. This technique is optimal for removal of the bulky lesions (over 4 millimeters) with wide insertion. Microlaryngoscopy is also more suitable for submucosal lesions, which require careful microsurgical dissection and preservation of the overlying epithelium. We found indirect laryngoscopic surgery convenient for smaller lesions (less than 3 millimeters) and for lesions with narrow insertion which can be grasped and removed with single instrument. This technique also provides the surgeon an opportunity to assess the patient's voice during the surgery and to operate with the larynx in its physiological position. Surgical treatment outcomes can be evaluated by pre- and postoperative voice assessment. The literature on comparing treatment outcomes after microlaryngoscopy and indirect laryngoscopic surgery is sparse.¹³

Conclusion

Although relatively technically simple, the indirect laryngoscopic surgery is not widely accepted in otolaryngologic practice. It is not a routine procedure and there is a lack of specific training during the residency. The author also observed the lack of interest for the procedure among the practitioners, as they are mostly trained and feel confident with the classic microlaryngoscopy in general anaesthesia. The technique is also not convenient for bulky and submucosal lesions and requires a certain degree of manual dexterity, as well as patient cooperation during the procedure, which is not always possible to achieve. However, the indirect phonosurgery under topical local anaesthesia is a valuable tool for removal of small benign vocal fold lesions and should be in armamentarium of every physician dealing with this kind of pathology, as a complementary procedure alongside conventional microlaryngoscopy. There is also a potential for future research, by comparing the voice improvement in both types of surgery, using subjective and objective voice analysis.

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Prikaz slučaja zapuštenog karcinoma penisa

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Apstrakt

Tumori penisa su najređi tumori urogenitalnog trakta kod muškaraca i čine manje od 1% svih tumora ove regije. Planocelularni karcinom je najčešći histološki tip ovih tumora i viđa se u oko 95% slučajeva. Prikazujemo slučaj pacijenta starosne dobi 66 godina, kod koga je dijagnostikovani veliki, zapušteni karcinom penisa koji je rastao 6 meseci, a pacijent nije bio motivisan da se javi na pregled sve do trenutka izraženog krvarenja iz tumorske promene. Pacijent je ubrzo operisan i tumor je u potpunosti odstranjen, a rani postoperativni tok je protekao uredno i pacijent je otpušten sa odeljenja. S obzirom da su karcinomi penisa redak entitet, javljaju se broje kontroverze po pitanju načina lečenja ovih promena. Mi smatramo da je individualni pristup svakom pacijentu uz oslanjanje na postojeće vodiče dobre kliničke prakse trenutno najbolji terapijski pristup.

Ključne reči: karcinom penisa; planocelularni karcinom penisa

Prikaz slučaja

Prikazujemo slučaj pacijenta, starosne dobi 66 godina koji je primljen u našu ustanovu preko hitne hirurške ambulate zbog izraženog krvarenja iz velike tumorske promene na penisu. U momentu prijema pacijent je svestan, orijentisan, blede prebojenosti kože, kahetičan. Objektivni pregled trbuha bio je u granicama normale. Lokalnim pregledom urogenitalnog trakta konstatovana je velika egzulcerisana promena dimenzija 13 x 11 x 9 cm dominantno u regiji penisa, ali koja značajno prelazi njegove granice i zahvata i okolna tkiva, testisi nisu bili dostupni palpaciji (slika 1). Ingvinalni limfni čvorovi nisu bili uvećani. Pacijent je primetio promenu na glansu penisa 6 meseci pre nego što se javio lekaru, ali usled teških porodičnih problema i smrti bliskog člana porodice, pacijent nije bio motivisan da se javi lekaru. Dva dana pre nego što je primljen u našu ustanovu primetio je da promena krvori na dodir, a u nekoliko navrata je primetio i gnojavi iscedak iz kripti na skrotumu. U ličnoj anamnezi nije bilo značajnijih podataka. Po prijemu su urađene osnovne laboratorijske analize koje su bile u granicama normale. Urađen je ultrazvučni pregled trbuha i male karlice, a potom i kompjuterizovana tomografija trbuha i male karlice koja je pokazala leziju promera oko 13 mm u S8 segmentu jetre, koja najverovatnije odgovara hemangiomu, dok je ostali nalaz bio u fiziološkim granicama. Pacijent je operisan kojom prilikom je urađena kompletna amputacija penisa zajedno sa tumorskom promenom, kao

A case of abandoned carcinoma of the penis

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Abstract

Penile tumors are rare neoplasms of the male urogenital tract and represent approximately 1% of all urogenital cancers in men. Squamous cell carcinoma is the most common histological type of these tumors, and is seen in about 95% of the cases. We report a case of a 66 years old male patient presented with large, neglected cancer of the penis, which grew about 6 months, but patient was not motivated for treatment until tumor began to bleed. Patient was operated and tumor was completely removed. The early postoperative course was uneventful and the patient was discharged from hospital. Since penile cancers are rare entity, there are counted controversy about the best method of treatment. We believe that the individual approach to each patient relying on existing good clinical practice guidelines is currently the best therapeutic approach.

Key words: penile cancer; squamous cell carcinoma of the penis

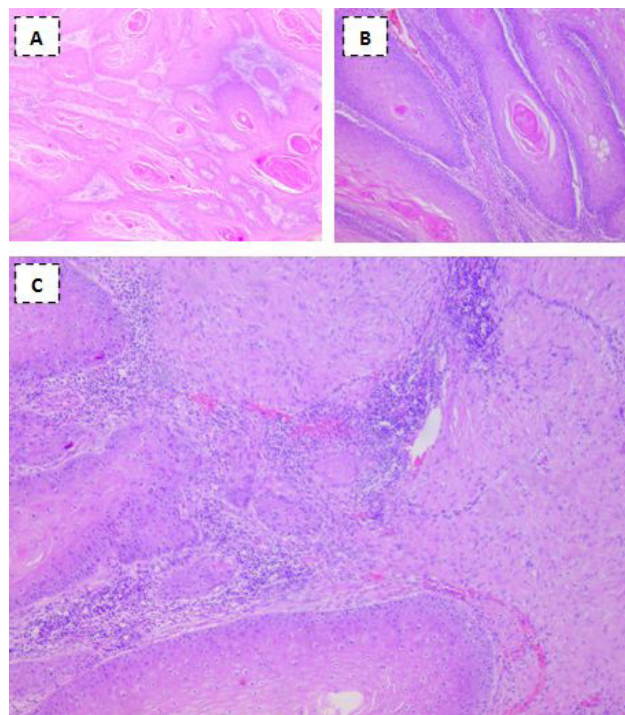
i obostrana orhidektomija, a potom je načinjena perinealna uretostomija (slika 2). Uzimajući u obzir da ingvinalni limfni čvorovi nisu bili uvećani, disekcija limfnih čvorova nije rađena. Patohistološka analiza pokazala je da se radi o dobro diferentovanom infiltrativnom planocelularnom karcinomu (histološki gradus G1) koji infiltrira uretru (stadijum T3) (slika 3). U ranom postoperativnom toku pacijent je dobro. U cilju dalje evaluacije bolesti urađen je rentgen pluća, kao i kompjuterizovana tomografija trbuha i male karlice, ali metastatski depoziti nisu uočeni. Pacijent je 20-i postoperativni dan otpušten iz bolnice uz predlog pažljivog praćenja naredne tri godine po sledećem protokolu: kontrolni pregled na svakih mesec dana tokom prve godine, a potom kontrolni pregled svakog drugog meseca tokom sledeće dve godine, uz kontrolnu kompjutrizovanu tomografiju truha i male karlice svaka 4 meseca. Takođe, zbog podatka da je pacijent zanemarivao bolest i nije želeo da se leči, savetovano mu je dalje psihijatrijsko lečenje.



Slika 1. Preoperativni lokalni nalaz karcinoma penisa.



Slika 2. Intraoperativni nalaz



Slika 3. Patohistološki nalaz. (A) H&E bojenje, uveličanje 10x, (B) H&E bojenje, uveličanje 20x, (C) H&E bojenje, uveličanje 10x.

Diskusija

Karcinomi penisa predstavljaju dijagnostički i terapijski izazov. Ovi tumori imaju snažan psihološki uticaj na pacijente i neretko je dijagnoza odložena jer pacijenti imaju tendenciju da zanemare rane simptome i da potraže medicinsku pomoć u odmakloj fazi bolesti kada konzervativni hirurški pristup više nije moguć³. U našem slučaju pacijent je primetio promenu na glansu penisa oko 6 meseci pre prijema u našu ustanovu. U tih 6 meseci pacijent nije bio motivisan za pregled zbog loših porodičnih odnosa i smrti bliskog člana porodice. Iako je dijagnoza postavljena sa zakašnjenjem, naknadna ispitivanja nakon operacije nisu pokazala postojanje metastatskih promena i pacijent je savetovan o rigoroznom praćenju po ustanovljenom protokolu⁴.

Među malignim neoplazmama penisa, planocelularni karcinom je ubedljivo najčešći i čini preko 90% ovih tumora. Primarni planocelularni karcinom penisa može se pojaviti na bilo kojoj lokalizaciji na penisu, ali se najčešće viđa na glansu, a potom na prepucijumu. Ređe može da zahvati obe lokalizacije, ali i koronalni sulkus. Tumor može biti velikih dimenzija i retko se viđa veći od 6,5 cm u najvećoj projekciji. Kod našeg pacijenta radilo se o zapuštenom tumoru, velikih dimenzija (13 x 11 x 10 cm), što predstavlja jedan od najvećih planocelularnih tumora penisa opisanih u literaturi. Mesto ishodišta tumora nije se moglo sa sigurnošću utvrditi, ali je pacijent primetio da se promena prvo pojavila na glansu penisa, što se smatra i najčešćim mestom ishodišta ovog tumora.

Terapija planocelularnog karcinoma penisa zavisi od kliničkog stadijuma bolesti, a uključuje radioterapiju, hemioterapiju, laserski tretman, hirurško lečenje i neretko kombinovani pristup, koji se danas i najviše preporučuje. Ipak, usled relativno oskudnog iskustva po pitanju lečenja planocelularnog karcinoma penisa, najbolji terapijski pristup uvek je kontroverzan, posebno po pitanju lečenja sekundarnih depozita regionalnih limfnih čvorova⁵. U slučajevima uznapredovalih karcinoma penisa, kao i diseminovanog oblika bolesti preporučuje se agresivna resekcija, a neretko i obostrana limfadenektomija⁶. Najnoviji pristup podrazumeva uklanjanje tumora i vidljivo uvećanih limfnih čvorova u isto vreme, iako se neretko radi samo o reaktivnim limfnim čvorovima⁷. Kod našeg pacijenta odlučili smo se za hirurški pristup, kojom prilikom je tumor uklonjen u potpunosti, a s obzirom da naknadnim detaljnim ispitivanjem sekundarni depoziti nisu uočeni,

pacijentu je predloženo dalje praćenje kontrolnim pregledima po utvrđenom protokolu.

Kod pacijenata obolelih od invazivnog tipa planocelularnog karcinoma penisa, bez prisustva ingvinalnih metastaza, kod kojih je postignuta adekvatna amputacija penisa sa tumorom, višegodišnje preživljavanje iznosi i do 80%. U slučaju da su detektovane metastaze u ingvinalnim limfnim čvorovima, višegodišnje preživljavanje nakon diskekcije iznosi oko 50%, dok se kod nelečenih pacijenata sa planocelularnim karcinomom penisa očekuje preživljavanje oko 2 do 3 godine⁶. Starije životno doba, viši klinički stadijum bolesti, kao i pozitivan nalaz limfnih čvorova predstavljaju značajne prediktore niže stope preživljavanja kod osoba obolelih od planocelularnog karcinoma. U studiji sprovedenoj na 118 pacijenata sa planocelularnim karcinomom penisa preživljavanje je najvećim delom zavisilo od statusa zahvaćenosti limfnih čvorova, pa je tako petogodišnje preživljavanje u prvom kliničkom stadijumu bilo 93% (T1-3, N0, M0), u drugom kliničkom stadijumu oko 55% (T1-T3, N1-2, M0), dok je u trećem kliničkom stadijumu preživljavanje bilo svega 30% (T4 ili N3 ili M1) (8-10). Kod našeg pacijenta radilo se o lokalnoj bolesti sa invazivnim planocelularnim karcinomom (T3, N0, M0), odnosno o prvom kliničkom stadijumu bolesti, zbog čega je pacijentu savetovano samo dalje rigorozno praćenje.

Zbog brojnih kontroverzi po pitanu lečenja pacijenata obolelih od planocelularnog karcinoma penisa, smatramo da je individualni pristup svakom pacijentu uz oslanjanje na vodiče dobre kliničke prakse trenutno najbolji terapijski pristup.

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Primena APACHE II skora u jedinicama medicinskih intenzivnih nega

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Potreba za postojanjem numeričke vrednosti, koja bi ukazala na trenutno stanje bolesnika, kao i kakve su prognostičke implikacije, zadovoljena je formulacijom skor-sistema, koji obično predstavljaju sumu rangovno transformisanih apsolutnih vrednosti za različite parametre. Druga krajnost ove priče je postojanje velikog broja ovih skor sistema, kao i prisustvo više različitih verzija svakog postojećeg skorovanja, koji se dopunjuje i razvija kroz kliničku primenu.

Dakle, kombinovanjem različitih vrednosti, bilo prostim, bilo komplikovanim matematičkim izrazima, dobija se broj, koji nešto iskazuje. Ispred broja je velikim slovima ispisano ime skora, poput APACHE II (engl. Acute Physiology And Chronic Health Evaluation). Postojeći skor sistemi mogu biti primenjivi na brojna stanja i oboljenja, kao npr. APACHE, a neki su usko specijalizovani za pojedine oblasti ili pak oboljenja, kao npr. TRS (engl. Adult Trauma Revised Score) ili SSS (engl. Sepsis Severity Score). Primena skorova treba da bude primerena instituciji, strukturi osoblja, a najvažnije opštem razumevanju šta skor znači.

Razvrstavanje kritično obolelih na hirurške i ne-hirurške, donela je novu organizacionu dimenziju u ustanovama i sledstveno formiranje hirurških i ne-hirurških (medicinskih) intenzivnih jedinica (engl. Medicine Intensive care Units). Nadalje, to je uslovalo nemogućnost da se lekari specijalizovani za rad sa kritično obolelim bolesnicima, u našim uslovima anesteziolozi, ionako nedovoljnog broja, bave svim ovim bolesnicima na različitim mestima. Tako su se nehirurškim kritično obolelim počeli baviti i oni lekari, kojima ovaj deo rada nije osnovna specijalnost (internisti, pedijatri, neurolozi, infektolozi i dr.). Osim obaveze za dodatnim obučavanjem ovog kadra za rad u jedinicama intenzivne nege (JIN), nametnula se potreba za upoznavanjem sa numeričkim skorovima, koji daju informacije o stanju bolesnika u trenutku ispitivanja, toku bolesti, ali i proceni ishoda lečenja, odnosno stope intrahospitalnog mortaliteta.

Sagledavanjem mogućnosti i jednostavnosti primene, u medicinskoj JIN KBC Zemun, kakvo je Odeljenje internističke intenzivne nege, u upotrebi je APACHE II skor.

APACHE II bodovni sistem je jedan od najčešće korišćenih kompjuterskih aplikacija u JIN, koji je nastao kao modifikacija osnovnog APACHE bodovnog sistema. Sastoji se od tri podskora: akutnog fiziološkog skora (engl. Acute Physiologic Score), skora za starost pacijenta, kao i skora za hronična oboljenja. Svaki podskor ima svoje komponente, koje ustvari predstavljaju izmerene vrednosti svakog pojedinačnog parametra unutar prva 24 h od prijema u JIN. Za obradu podataka se uvek uzima najnepovoljnija izmerena vrednost. Sumiranjem vrednosti tri podskora dobija se sumirani APACHE II skor, sa rasponom vrednosti od 0 do 71. Što je skor veći, veći je rizik intrahospitalne smrtnosti.

Jednostavnim klikom na link (<http://www.mdcalc.com/apache-ii-score/> ili <http://clincalc.com/IcuMortality/APACHEII.aspx>) otvara se aplikacija APACHE II skora, sa izvorom informacija o samom skoru, kao i o neophodnim varijablama za kalkulaciju skora, uključujući i tumačenje sumiranog APACHE II skora.

APACHE II skor je dugo smatran statičnim brojem, sa vrednošću izračunatom u jednom vremenu, tj. momentu prijema. Međutim, čini se da će vreme pokazati o mogućnostima njegove višestruke primene tokom trajanja iste epizode lečenja i dobiti sledstven dinamičan karakter (npr. procena efikasnosti terapije u momentu određivanja). Konačno, njegovo smanjenje vrednosti može biti značajan objektivan pokazatelj da se aktuelno pogoršanje zdravstvenog stanja popravilo, te da bolesniku više nije neophodna intenzivna, već poluintenzivna, a potom i osnovna nega. Pored toga, ukoliko se u lancu transfera bolesnika javi pogoršanje, izraženo kroz povećanje vrednosti APACHE II skora, bolesnik bi se sa poluintenzivne nege prebacio na intenzivnu negu, odnosno sa osnovne na poluintenzivnu. Da bi se ovo sprovedo, mora se obezbediti postojanje, i što je još važnije



funkcionalnost, poluintenzivnih jedinica ili odeljenskih mesta, a pripadajući kadar obuči za ove jednostavne procedure, uz trenutno dostupno praćenje bolesnika.

S'obzirom da je rad u JIN timski, svi medicinski tehničari u JIN su upoznati sa kalkulacijom i značanjem APACHE II skora. Taj izračunat broj, napisan na temperaturnoj i individualnoj bolesničkoj listi, značajno utiče na planiranje procesa zdravstvene nege određene dijagnozom bolesti i težinom kliničkog stanja bolesnika.

Iako skorovi i njihove aplikacije svakodnevno evoluiraju, te postoji APACHE III, IV, čini se da je zlatno pravilo jednostavnosti i praktičnosti primene, kao i familijarnosti sa već korišćenom metodom ponovo potvrđeno. Uvođenjem višestruke primene APACHE II skora u epizodi bolesti, iako postoje komercijalni repetitivni skorovi, dobiće se uvid u tok bolesti i kvalitet lečenja, kao i olakšanje u donošenju odluke o daljem lečenju i praćenju bolesnika. Ponavljano merenje će omogućiti dinamičan protok bolesnika, čime će se obezbediti da bolesnici dobiju adekvatan nivo pružene nege koji im pripada u svakom momentu njihovehospitalizacije. Manjim promenama, tačnije preraspodelama, u organizaciji službi i kadra, dobiće se na kvalitetu lečenja, očuvanju kadra, ali i na bezbednosti rada prijemnih doktora.

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UPUTSTVO ZA PRIPREMU RUKOPISA

Koristite Time New Roman, font 12, justify orijentaciju (Ctrl + J) i prored 1,5

1. strana

Naslov rada (do 12 reči ili 100 slovnih mesta sa proredima, pisati malim slovima poštujući pravopis o velikim slovima, ne stavljati tačku na kraju)

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¹ Ustanova iz koje su autori (pun naziv)

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2. strana

Apstrakt (do 250 reči, strukturiran)

Pišite ga u: originalnom naučnom članku, preglednom članku, prikazu slučajeva, rubrici aktuelno i u rubrici seminarski radovi, a ne pišite ga u uvodnicima i pismima uredništvu

Apstrakt treba da sadrži sledeće delove

Cilj (Objective, Aims),

Metod (Methods),

Rezultate (Results)

Zaključak (Conclusion).

Ključne reči: ili kratke fraze do 10 (obavezno sa MeSH liste koja se može naći na web sajtu www.nlm.nih.gov/tsd/serials/lji.html)

I SADA PONOVI SVE NA ENGLESKOM

3. strana

Uvod (idealno uvod je uvod do 25 rečenica na jednoj strani A4 formata)

1. **Paragraf** - 1-2 uvodne rečenice za centralnu rečenicu **Centralna rečenica, ključna rečenica prvog paragrafa je odgovor na pitanje „Šta mi znamo” (polje istraživanja)**. Posle centralne rečenice slede 1-2 završne rečenice za 1. paragraf ili 1-2 prelazne na sledeći paragraf. Poželjno je ovaj deo potkrepiti sa 1-2 reference, ne više od 5, a najbolje je da to budu poglavlja iz udžbenika ili revijalni radovi.

2. **Paragraf** - 1-2 uvodne rečenice ka centralnoj rečenici drugog paragrafa. **Centralna rečenica, ključna rečenica prvog paragrafa je odgovor na pitanje „Šta mi ne znamo” (problem istraživanja)**. Čitaoca upoznajete sa postojećim podacima (tuđim i sopstvenim) o problemu koji istražujete, o ograničenjima da se taj problem reši i o pitanjima na koja odgovori još nisu dati. Citirati samo one reference koje se neposredno odnose na istraživanje istog predmeta i koja su prethodila vašem istraživanju.

3. **Paragraf** - Cilj vašeg istraživanja.

Sugestije:

Ako preterate sa referencama u Uvodu izgubićete „blago” za diskusiju i opteretit ćete spisak literature (većina časopisa dozvoljava, pa i mi najviše 25-30 referenci. Prilikom prikupljanja reference neophodno je citirati reference novijeg datuma, naravno da neka stara (“kapitalna”) može naći svoje mesto. Redosled referenci koje citirate treba da sledi logičan raspored paragrafa uvoda. Prve reference su one koje se odnose na uopšteno znanje o problem i reference o istraživačkom problem. Zatim slede reference vezane za nova istraživanja - prethodna, aktuelna istraživanja i njihove limitacije

Nikada u Uvodu ne iznositi svoje rezultate

Konkretan cilj se obično navodi u jednoj rečenici (poslednjoj rečenici Uvoda) koja postavlja očekivanja zbog kojih je istraživanje započeto i zbog kojeg se rad piše. Vodite računa cilj je prva rečenica strukturiranog apstrakta i poslednja rečenica Uvoda .

4. strana

Materijal i metode

Opišite kako ste došli do rezultata (precizan dizajn studije, metoda koju ste koristili i kako ste analizirali podatke). Tačni podaci gde je studija sprovedena. Budite koncizni (ne pišete turistički vodič). Ukoliko koristite standardni metod citirajte referentnu literaturu. Sve mere koje saopštavate u poglavlju rezultati, u poglavlju metode moraju imati opisan način kao se do njih došlo. Prilikom čitanja ovog metoda, treba omogućiti čitaocima da imaju kritički uvid u vaš radi i da ponove vašu studiju baš na onaj način kako ste je vi uradili. Podnaslovi koji se koriste u poglavlju metoda kao što su: učesnici, dizajn studije, specifične metode, analiza podataka... klasično određuju njen sadržaj. Neophodno je da date detalje o odobrenju vaše studije, koje je dao etički komitet vaše institucije u kojoj je istraživanje sprovedeno. Zbog toga što su etički principi fundamentalni za dobru istraživačku praksu, mnogi časopisi ne žele da publikuju članke koji ne uključuju detalje o etničkim odobrenjima (Materia Medica je prihvatila Principe dobre naučne prakse). Čitaoci žele da znaju na koji ste način uključili ljude u vašu studiju. Stoga, izbor učesnika mora biti jasno opisan i uključujući i isključujući detalji moraju biti opisani u sitnice. Prilikom opisivanja učesnika studije, njihova privatnost mora biti poštovana. Ne smete uključiti bilo kakve identifikacione informacije o njima, u tekstu, tabelama ili fotografijama. Ako se koristi fotografija, pismeni pristanak mora biti uzet od pacijenta ili ako su deca, od njihovih roditelja. Veličinu i karakteristike uzorka, ne stavljajte u poglavlje materijal i metode nego stavite na početak poglavlja rezultati. Mnoge istraživačke studije koriste upitnike pa u poglavlju metode morate dati precizne detalje o upitniku, koje ste koristili, kako ste ga razvili, i testirali za ponovljivost. U eksperimentalnim studijama, detalji intervencija i kako su primenjeni moraju biti u potpunosti opisane.

5. Strana

Rezultati

Posle metoda, predstavlja najlakše poglavlje za pisanje. Možete koristiti interesantne kombinacije teksta, tabli i figura da odgovorite na pitanje studije u vidu jasne priče. Ovo poglavlje iz praktičnih razloga je poželjno pisati posle poglavlja metode, a pre pisanja uvoda i diskusije. Osnovno je da sopstvene rezultate učinite jasnim za čitaoca kako bi razumeli šta ste radili i dokle ste stigli. Ovo poglavlje mora voditi čitaoca kroz proces istraživanja. Dužina ovog poglavlja je određena isključivo brojem rezultata koje želite da prikazete, a ne onim što vi želite da kažete o tome. Rezultate treba prikazivati postepeno.

Prvo se prikazuju elementi deskriptivne statistike koja opisuje karakteristike uzorka studije. To je prvi paragraf poglavlja rezultati i njegov cilj je da precizno i jasno prikaže detalje vašeg uzorka. To je veoma važno, jer epidemiolozi žele da znaju kako ste definisali karakteristike vašeg uzorka, a kliničari žele da znaju koliko su učesnici u vašoj studiji slični sa njihovim pacijentima. Po završetku statističke analize podaci i rezultati se mogu prikazati na tri načina: tekstualno, tabelama i figurama.

Tekst – pojedine rezultate je bolje prikazati jednostavnim rečenicama sa podacima stavljenim u zagradu. *Primer: srednja vrednost proliferativnog potencijala za PCNA (2.20%) je veća nego srednja vrednost za Ki-67 P (1.64%) i Cyclin D1 (1.36%).*

Tabele – predstavljaju popis brojeva ili teksta u rubrikama pri čemu je svaka rubrika obeležena. Tabele po red prikazivanja podataka na pregledan način omogućavaju i ekonomično raspologanje prostorom u članku. Ne treba ih koristiti da bi se pokazao način kretanja nekih rezultata (trend) ili veza između pojedinih rezultata i to je bolje prikazati figurama (dijagramima). Na primer ukoliko želite da prikazete veličinu uzorka i odnos polova vaših ispitanika bolje je da koristite tabelu. Međutim, ukoliko želite da prikazete način na koji je pol povezan sa uzorkom populacije onda je bolje koristiti dijagrame. Legenda tabele se stavlja ispod tabele, levo orjentisana. U mnogim eksperimentalnim i opservacionim studijama je neophodno da prikazete osnovu upoređivanje studijskih grupa koje takođe definišu sposobnost generalizacije vaših rezultata. Nikada ne nazovite osnovnu karakteristiku vašeg uzorka „demografskim“ jer shodno Oksfordskom rečniku, demografija je grana antropologiju u kojoj se proučava statistika, rođenja, smrti i bolesti i stoga, to nije prikladno za ovaj kontekst. U bilo kojoj studiji, procenat, srednja vrednost i njena standardna devijacija ili medijana i njen rang su najprikladnije metode deskriptivne karakteristike i zavise od informacija koje opisuju.

Figure – prikazivanje rezultata figurama podrazumeva korišćenje dijagrama, fotografija, šema, mapa i crteža kako bi se na jasan i pregledan način prikazali rezultati dobijeni u istraživanju. Postoji više vrsta dijagrama (štapišasti dijagram (*engl. bar chart*), histogrami učestalosti (*engl. histogram*), pogačasti dijagrami (*engl. pie chart*), linijski dijagrami (*engl. line graph*), i grafikoni sa slikama (*engl. pictograph*) prilagođenih za opisivanje i prikazivanje različitih vrsta obeležja i rezultata.

Sledeći paragraf poglavlja rezultati se odnosi na opisivanje bivarijantnih analiza.

U trećem paragrafu se opisuju multivarijantne analize i to je mesto gde se završava cilj ili testiranje hipoteze, navedeno na kraju poglavlja uvod. Prilikom pisanja ovog paragrafa jedino je bitno da kažete čitaocu ono što on želi da zna. Nemojte dodavati ili uključivati bilo kakve podatke koji se udaljavaju od glavnog cilja. Podsećamo vas da rezultati i podaci nisu ista stvar, nije potrebno da ponavljate brojeve u tekstu koje ste prikazali u tabelama ili figurama. Čitaoci žele da prime poruku iz tabela ili figura i ne treba im dozvoliti da sami interpretiraju.

6. Strana

Diskusija (1/3 vašeg teksta)

Diskusija je vrlo često najslabiji deo članka. Pojedine stvari u poglavlju diskusija praktično NE SMETE uraditi:

1. ne ponavljajte činjenice iz uvoda
2. izbegavajte ponavljanje rezultata
3. ne prikazujte rezultate koje niste prikazali u poglavlju rezultati
4. ne postoji ni jedan razlog da podvlačite koliko je „sjajan“ vaš rezultat, dozvolite da čitaoci sami o tome prosude

Diskusija ne predstavlja jednostavno ponavljanje rezultata ili potvrde njihove tačnosti. Svaka diskusija iznosi ono izvan očiglednosti (*engl. beyond the evidence*). Svaki članak sadrži zaključak koji se ne nalazi u poglavlju rezultati. Takođe svaki statistički značajan nalaz nema klinički značaj.

Diskusiju bi trebalo započeti, po mogućstvu jednom rečenicom - ponavljanjem glavnog nalaza. **1. paragraf** poglavlja diskusija se jednostavno može početi: „Naša studija pokazuje...” i izneti sažeto nalaz naše studije, po mogućstvu u jednoj rečenici.

2. paragraf - treba izneti jasno i precizno (praktično opširno) prednosti i nedostatke studije sa podjednakim naglaskom na oba elementa. Posebno treba imati na umu da će i urednici i čitaoci biti najzainteresovaniji baš za taj paragraf diskusije. Ukoliko urednik ili čitalac otkriju nedostatke u vašoj studiji, a vi ih niste opisali izgubiće poverenje u vašu studiju, jer praktično se postavlja pitanje: „Kolika je snaga vaše studije ako vi niste uočili nedostatak?”

3. paragraf se odnosi na studiju koja je izvedena. Neophodno je izneti doprinos studije. Ne treba iznositi da li je i u kojoj meri bolja od prethodnih studija na osnovu kvaliteta ili nedostataka koje ste izneli u prethodnom paragrafu, nego treba prednosti i nedostatke sopstvene studije uporediti sa prednostima i nedostacima drugih studija. Vrlo je važno da naglasite zašto ste vi dobili drugačije rezultate od ostalih ukoliko ste ih dobili. Pažnja! U ovom trenutku postoji opasnost da uđete u sferu špekulacija. Ukoliko ne znate zašto se vaši rezultati razlikuju od drugih iznesite to i ne pretendujte da su vaši ispravni, a tuđi pogrešni.

