

**FREKVENCIJA HIPODONCIJE STALNIH ZUBA KOD DECE****FREQUENCY OF HYPODONTIA OF PERMANENT TEETH  
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Analizirali smo 2470 pacijenata oba pola Klinike za stomatologiju iz Niša uzrasta 10–14 godina, sa ciljem da ustanovimo učestalost hipodontije stalnih zuba (isključujući treće molare), njenu lokalizaciju u vilicama kao i broj i vrstu zuba koji nedostaju.

Urođeni nedostatak jednog ili više zuba imalo je 155 pacijenata (6,05%) i to 94 devojčice i 61 dečak. Sa nedostatkom zuba u donjoj vilici bilo je 41,21% ispitanika, u gornjoj 32,90% a u obe vilice istovremeno 25,81%. Umanjen broj zuba kretao se od 1 do 11. Većina dece (40,00%) imalo je nedostatak jednog zuba a u nešto manjem procentu (34,84%) nedostatak dva zuba. Samo je jedan dečak imao hipodontiju 11 zuba.

Hipodoncijom su najčešće zahvaćeni drugi stalni premolari (53,76%), zatim lateralni sekutici (30,65%) i centralni sekutici (8,06%). Slučajeva sa hipodoncijom prvih stalnih molara nije bilo.

**Ključne reči:** hipodoncija, rendgen analiza, ortopantomogram

**Abstract**

We analysed 2.470 patients of both sexes of the Clinic of stomatology from Nis of the age of 10-14 years, aiming to find out the frequency of hypodontia of permanent teeth (excluding the third molars), its localization in the jaws as well as the number and kind of the missing teeth.

The inborn shortage of one or more teeth was present in 155 patients (6.05%) and that is 94 girls and 61 boys. With the shortage of teeth in the lower jaw there were 41.21% examinees, in the upper 32.90% and in both jaws simultaneously 25.81%. The reduced amount of teeth ranged from 1 to 11. The majority of children (40.00%) had the shortage of one tooth and in a slightly smaller percentage (34.84%) the shortage of two teeth. Only one boy had the hypodontia 11 teeth.

With hypodontia the second permanent premolars are most frequently taken (53.76%), then lateral incisors (30.65%) and then central incisors (8.06%). There were no cases with the hypodontia of the first permanent molars.

**Key words:** hypodontia, roentgen analysis, orthopantomograph

**Uvod**

Hipodoncija, oligodoncija ili atelodoncija su termini koji označavaju kongenitalni nedostatak jednog ili više zuba, što nastaje kao rezultat poremećaja tokom inicijalne faze formiranja zuba, faze inicijacije i proliferacije.

Anodoncija, pak, označava totalno odsustvo zuba i obično je udružena sa nekim sindromima,

**Introduction**

Hypodontia, oligodontia or atelodontia are terms which denote congenital shortage of one or more teeth which occurs as a result of disturbance during the initial phase of forming teeth, phase of initiation and proliferation.

Anodontia, however, denotes total absence of teeth and is usually joined with some

blagim sistemskim abnormalnostima, kao što je sindrom ektodermalne displazije. Oligodoncija podrazumeva nedostatak većeg broja zuba i javlja se kod osoba bez vidljivih sistemskih problema ili kongenitalnih sindroma<sup>1</sup>. Anodontija i oligodoncija su retke, dok je hipodoncija relativno česta pojava. Zavisno od ispitivane populacije frekvencija hipodoncije se kreće od 2,3 do 9,6%, isključujući treće molare<sup>2</sup>. Frekvencija hipodoncije prema drugim autorima se kreće od 5,9% u Hrvatskoj<sup>3</sup>, 6,1% u Švedskoj<sup>4</sup>, 7,9% u Finskoj i Islandu, 9,6% u Austriji i Švajcarskoj i čak 15,6% u Mađarskoj<sup>5</sup>. Ispitivanja Younga<sup>6</sup> na 3000 osoba od kojih je 75,8% bele rase, 22,3% Pakistanaca i 1,9% druge ili mešovite rase u Engleskoj su pokazala da je hipodoncija češća kod osoba bele rase (9,2%) dok je kod Pakistanaca zastupljena u značajno nižem procentu (5,2%).

Nedostatak zuba se javlja kako u mlečnoj tako i u stalnoj denticiji. Ukoliko nedostaje mlečni Zub nedostaje i njegov starni sledbenik pošto se Zubni pupoljak starnih zuba razvija iz gleđnog organa mlečnih zuba. Moguće je, međutim, da svi mlečni zubi budu prisutni a da izostane stvaranje zametaka starnih zuba.

Hipodoncija starnih zuba je češća kod osoba ženskog pola, češća u gornjoj nego u donjoj vilici, češća bilateralno nego unilateralno, češća kod žute nego kod bele rase. Etiologija hipodoncije nije još uvek razjašnjena. Uglavnom je genetskog ili filogenetskog porekla mada se i drugi endogeni ili egzogeni faktori mogu optužiti za njen nastanak. Brojna ispitivanja familija i blizanaca su pokazala da je hipodoncija ipak najčešće nasledna anomalija<sup>7,8</sup>. Pilotto i sar.,<sup>9</sup> ispitivali su da li je ageneza zuba genetski determinisana i da li postoji razlika između ageneze anteriornih (I-C) i posteriornih zuba (P-M). Njihovo mišljenje je da se ageneza zuba autozomno dominantno nasleđuje sa varijabilnom ekspresijom i inkompletom penetracijom gena. Ispitivanje porodičnog stabla pacijenata koji su pored hipodoncije imali i druge anomalije (prekobrojni zubi, mikrodontija, zubi nepravilnog oblika) upućuje da hipodoncija može biti jedna od manifestacija anomalije dentalne lamine (npr. blaga displazija) i da je hipodoncija prednjih zuba genetski determinisana a hipodoncija bočnih zuba sporadična pojava.

syndroms, slight systemic abnormalities such as the syndrom of ectodermal dysplasia. Oligodontia implies shortage of a bigger amount of teeth and appears in persons without visible systemic problems or congenital syndromes<sup>1</sup>. Anodontia and oligodontia are rare while hypodontia is relatively frequent phenomenon. Depending on the examined population, the frequency of hypodontia ranges from 2.3 to 9.6% excluding the third molars<sup>2</sup>. The frequency of hypodontia, according to other authors, ranges from 5.9% in Croatia<sup>3</sup>, 6.1% in Sweden<sup>4</sup>, 7.9 % in Finland and Island, 9.6% in Austria and Switzerland and even 15.6% in Hungary<sup>5</sup>. The examinations of Young<sup>6</sup> in 3,000 persons out of whom there are 75.8 % white caucasian, 22.3% Pakistani and 1.9% other or mixed race in England showed that hypodontia is more frequent in persons of white caucasian race (9.2%) while in Pakistani it is represented in a significantly lower percentage (5.2%).

The shortage of teeth appears both in milk and in permanent dentition. In case a milk tooth is missing, then its permanent successor is missing since the tooth bud of permanent teeth is developed from the enamel organ of milk teeth. It is possible, however, to have all milk teeth present and to have no creation of the embryo of permanent teeth.

Hypodontia of permanent teeth is more frequent in persons of female sex, more frequent in the upper than in the lower jaw, more frequent bilaterally than unilaterally, more frequent in yellow than in white caucasian race. The etiology of hypodontia is not yet explained. It is mainly of genetic or phylogenetic origin although other endogenous or exogenous factors can be accused of its appearance. Numerous examinations of families and twins have showed that hypodontia is nevertheless inherited anomaly<sup>7,8</sup>. Pilotto et al.,<sup>9</sup> were examining whether agenesis of teeth is genetically determined and whether there is a difference between agenesis of anterior (I-C) and posterior teeth (P-M). Their opinion is that agenesis of teeth is autozomously dominantly inherited with variable expression and incomplete penetration of genes. The examination of family tree of patients who had, beside hypodontia, other anomalies as well (supernumerary teeth, microdontia, teeth of irregular shape) points out that hypodontia can be one of manifestations of the anomaly of dental lamina (for example slight dysplasia) and

U prošlosti je teorija filogenetske redukcije takođe korišćena za objašnjenje nastanka hipodontije. Čest nedostatak zadnjih zuba svake morfološke grupe (trećih molara, drugih premolara i lateralnih gornjih sekutića) korišćen je kao dokaz filogenetske redukcije. To je rezultat prilagođavanja i usavršavanja organa za žvakanje novim funkcionalnim potrebama.

Cilj rada bio je da se utvrdi broj, vrsta i lokalizacija urođenog nedostatka zametaka stanih zuba kod dece iz Niša, uporedi sa rezultatima ispitivanja drugih autora u različitim populacionim grupama i odredi kolika je učestalost hipodontije na našim prostorima.

## **Materijal i metod**

Analizom je obuhvaćeno 2470 ortopantomograma dece oba pola uzrasta od 10 do 14 godina. Ortopantomografski snimci su urađeni na Klinici za stomatologiju u Nišu pomoću aparata Rotograph plus (Villa Sistemi Medicali, Buccinasco, Italija), uz kondiciju snimanja: vreme ekspozicije 65 kV, 15 mAs. Snimci su rađeni na filmovima Agfa Dentus Ortholux (Agfa Dentus ®, Belgija), dimenzija 12,7 x 30,5 cm. Analiza snimaka i utvrđivanje anodoncije zuba je sprovedeno na Klinici za stomatologiju u Nišu, na odeljenju za ortopediju vilica.

## **Rezultati**

Analizirano je ukupno 2500 ortopantomografskih snimaka dece oba pola metodom slučajnog izbora. Od ukupnog broja ortopana 30 je eliminisano iz tehničkih razloga (nejasni i neuspeli snimci). Od 2470 preostalih ispitanika 1141 je bio muškog a 1329 ženskog pola.

Analizom 2470 ortopantomograma dece oba pola iz Niša uzrasta od 10 do 14 godina, utvrđen je urođeni nedostatak jednog ili više zuba kod 6,28% dece. Od 1329 ispitanih devojčica 94 (7,06%) ih je bilo sa hipodoncijom a od 1141 ispitanog dečaka njih 62 (5,34%) je bilo sa hipodoncijom. (Grafikon 1)

Što se tiče lokalizacije nedostatka zuba u vilicama od ukupnog broja ispitanika sa hipodo-

that hypodontia of the front teeth is genetically determined and that hypodontia of side teeth is a sporadic phenomenon. In the past, the theory of phylogenetic reduction was also used for explanation of hypodontia occurrence. Frequent shortage of back teeth of each morphological group (third molars, second premolars and lateral upper incisors) was used as a proof of phylogenetic reduction.

It is a result of adjusting and improving the chewing organs to new functional needs. The objective was to determine the amount, kind and localization of inherited shortage of embryos of permanent teeth in children from Nis, make a comparison with the results for examining other authors in various population groups and to find out how big is the frequency of hypodontia in our areas.

## **Material and method**

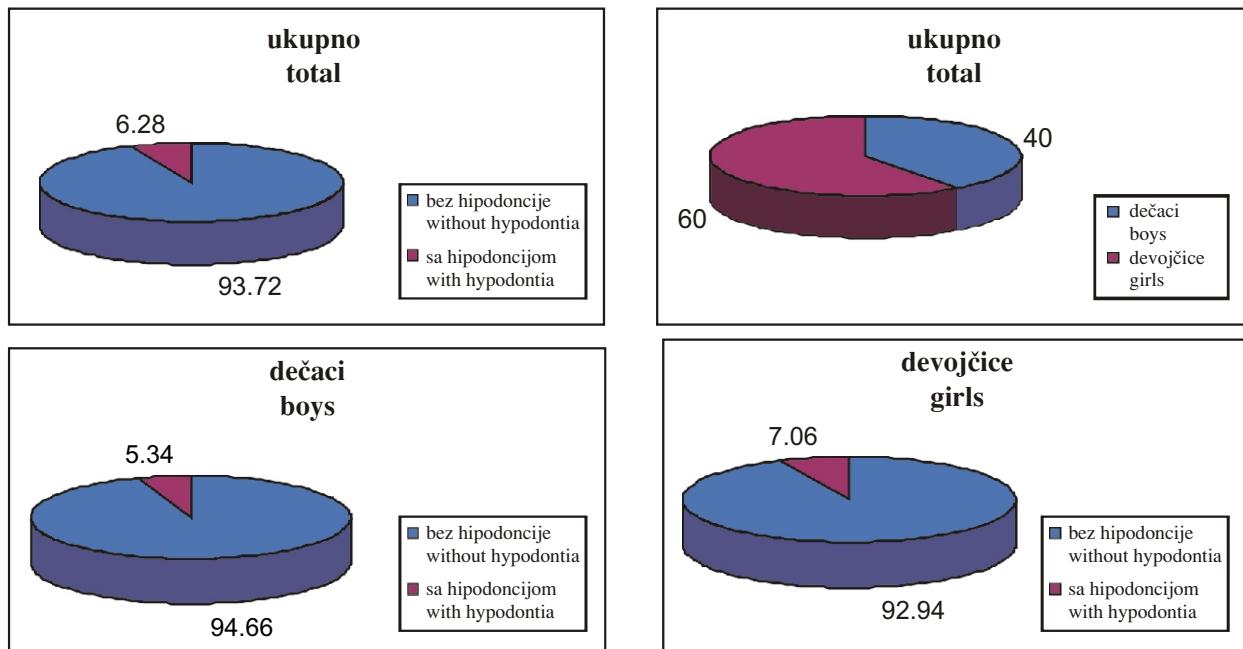
By analysis, 2,470 orthopantomograms of children were included of both sexes and the age from 10 to 14 years. The orthopantomograph snapshots were made at the Clinic for stomatology in Nis by means of the apparatuses Rotograph plus (Villa Sistemi Midicali, Buccinasco, Italy) with the condition of taking snapshots: the time of the exposition 65 kV, 15 mAs. The snapshots were made on films Agfa Dentus Ortholux (Agfa Dentus (R) Belgium), dimensions 12.7 x 30.5 cm. The analysis of the snapshots and determination of anodontia of teeth were pursued at the Clinic of stomatology in Nis, at the department for orthopedics of jaws.

## **Results**

Totally 2,500 orthopantomograph snapshots of children were analysed of both sexes by the method of random choice. Out of the total number of orthopans, 30 were eliminated for technical reasons (unclear and unsuccessful snapshots). Out of 2,470 remained examinees, 1,141 were male and 1,329 female sex.

By the analysis of 2,470 orthopantomographs of children of both sexes from Nis of the age from 10 to 14 years, inborn shortage was determined of one or more teeth in 6.28% children. Out of 1,329 examined girls, 94 (7.06%) of them were with hypodontia and out of 1,141 examined boys, 62 of them (5.34%) were with hypodontia. (Graphic 1)

As concerns the localization of the shortage of teeth in jaws out of the total number of

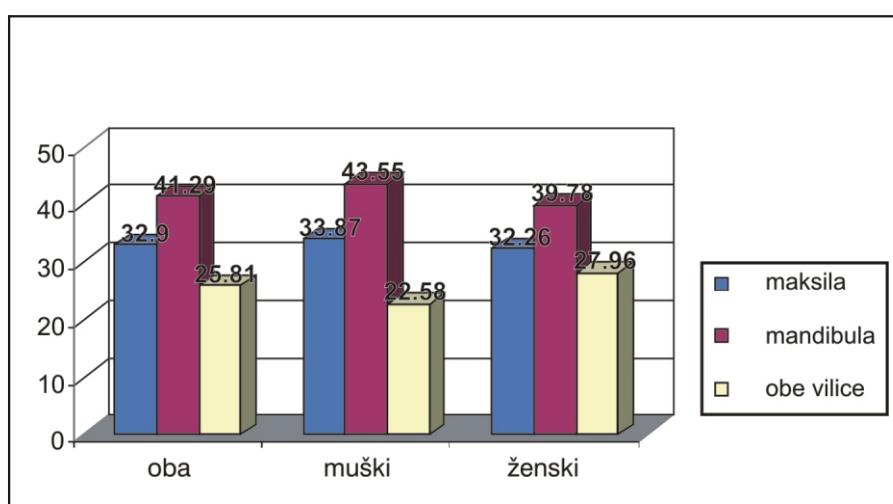


Grafikon 1. Frekvencija hipodoncije po lokalizaciji u vilicama i polu  
 Graphic 1. Frequency of hypodontia according to localization in the jaws and to sex

ncijom, 51(32,90%) je bilo sa urođenim nedostatkom zuba u maksili, dok je nedostatak zuba u mandibuli prisutan u većem procentu (64 ispitanika tj. 41,29%), a kod 40 osoba (25,81%) bila je zastupljena hipodoncija u obe vilice istovremeno. I kod dečaka i kod devojčica češći je urođeni nedostatak donjih zuba (43,55% kod dečaka i 39,78% kod devojčica), dok je hipodoncija gornjih zuba prisutna u nižem procentu (33,87% kod dečaka i 32,26% kod devojčica). U obe vilice istovremeno hipodoncija je registrovana kod 22,58 % dečaka i 27,96% devojčica. (Grafikon 2) Broj zuba koji nedostaju kod naših ispitanika kretao se od 1 do 11. (Tabela 1)

examinees with hypodontia, 51 (32.90%) were with inherited shortage of teeth in maxilla while the shortage of teeth in mandible is present in a higher percentage (64 examinees i.e. 41.29%) and in 40 persons (25.81%) there was presented hypodontia in both jaws simultaneously. Both in boys and in girls, the inborn shortage of lower teeth is more frequent (43.55% in boys and 39.78% in girls), while hypodontia of upper teeth is present in a lower percentage (33.87% in boys and 32.26% in girls). In both jaws simultaneously, hypodontia is registered in 22.58% boys and 27.96% girls. (Graph 2) The number of teeth missing in our examinees ranged from 1 to 11. (Table 1)

The majority of children, 40.0% of them, had a shortage of one tooth (59.68% in girls and



Grafikon 2. Frekvencija hipodoncije po lokalizaciji u vilicama i polu  
 Graph 2. Frequency of hypodontia according to localization in the jaws and to sex

*Tabela 1.* Frekvencija hipodoncije po broju zuba i polnim grupama  
*Table 1.* Frequency of hypodontia according to the amount of teeth and sex groups

hipodoncija hypodontia	Pol / Sex					
	muški / male		ženski / female		oba / both	
	N	%	N	%	N	%
1 zub / 1 teeth	25	40,32	37	59,68	62	40
2 zuba / 2 teeth	23	42,59	31	57,41	54	34,84
3 zuba / 3 teeth	7	43,75	9	56,25	16	10,32
4 zuba / 4 teeth	3	27,27	8	72,73	11	7,10
5 zuba / 5 teeth	0	0	2	100	2	1,29
6 zuba / 6 teeth	2	50	2	50	4	2,58
7 zuba / 7 teeth	0	0	3	100	3	1,94
8 zuba / 8 teeth	0	0	2	100	2	1,29
11 zuba / 11 teeth	1	100	0	0	1	0,65
	61	39,35	94	60,65	155	6,28

Najveći broj dece, njih 40,0% imao je nedostatak jednog zuba (59,68% kod devojčica i 40,32% kod dečaka). U nešto nižem procentu (34,84%) prisutna je hipodoncija dva zuba i to kod 57,41% devojčica i 42,59% dečaka. Nedostatak tri zuba imalo je 10,32% dece (56,25% devojčica i 43,75% dečaka) a 7,10% dece nedostatak četiri zuba (72,73% devojčica i 27,27% dečaka). Kod dve devojčice utvrđen je nedostatak pet zuba (1,29%), dok su dve devojčice i dva dečaka (2,58%) imali nedostatak šest zuba. Hipodoncija sedam zuba (1,94%) i osam zuba (1,29%) prisutna je samo kod devojčica. Nedostatak čak 11 zuba, što je inače i najveći broj zuba koji nedostaje registrovan u našoj studiji, zabeležen je samo kod jednog dečaka (0,65%).

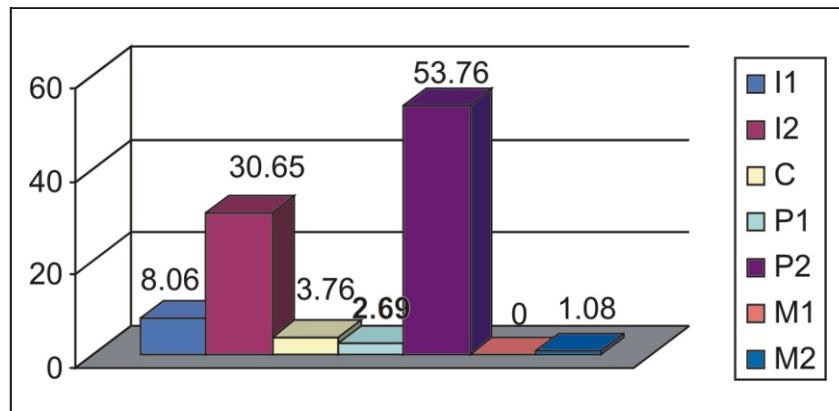
Prema vrsti zuba koji nedostaju došli smo do sledećih rezultata: u najvećem procentu je bila zastupljena hipodoncija drugih premolara (53,76%), zatim lateralnih sekutića (30,65%), donjih centralnih sekutića (8,06%), dok je hipodoncija ostalih zuba bila sporadična pojava (maksilarni očnjaci nedostaju u 3,76%, maksilarni prvi premolari u 2,69%, mandibularni drugi molari u 1,08% slučajeva) dok hipodoncija prvih stalnih molara nije nađena). (Grafikon 3)

Na grafikonu 4 je predstavljena frekvencija hipodoncije po vrsti zuba i lokalizaciji u vilicama. Drugi premolari u mnogo većem broju slučajeva nedostaju u donjoj vilici (83,82%). Hipodoncija lateralnih sekutića je dominantno lokalizovana u gornjoj vilici (94,44%), hipo-

40.32% in boys). In a slightly lower percentage (34.84%) there is hypodontia present of two teeth, namely 57.41% in girls and 42.59% in boys. The shortage of three teeth was present in 10.32% children (56.25% girls and 43.75% boys) and 7.10% of children the shortage of four teeth (72.73% girls and 27.27% boys). In two girls, there was shortage of five teeth determined (1.29%) while two girls and two boys (2.58%) had a shortage of six teeth. The hypodontia of seven teeth (1.94%) and eight teeth (1.29%) was present in girls only. The shortage of even 11 teeth, which is otherwise the biggest amount of teeth missing registered in our study, was marked in only one boy (0.65%).

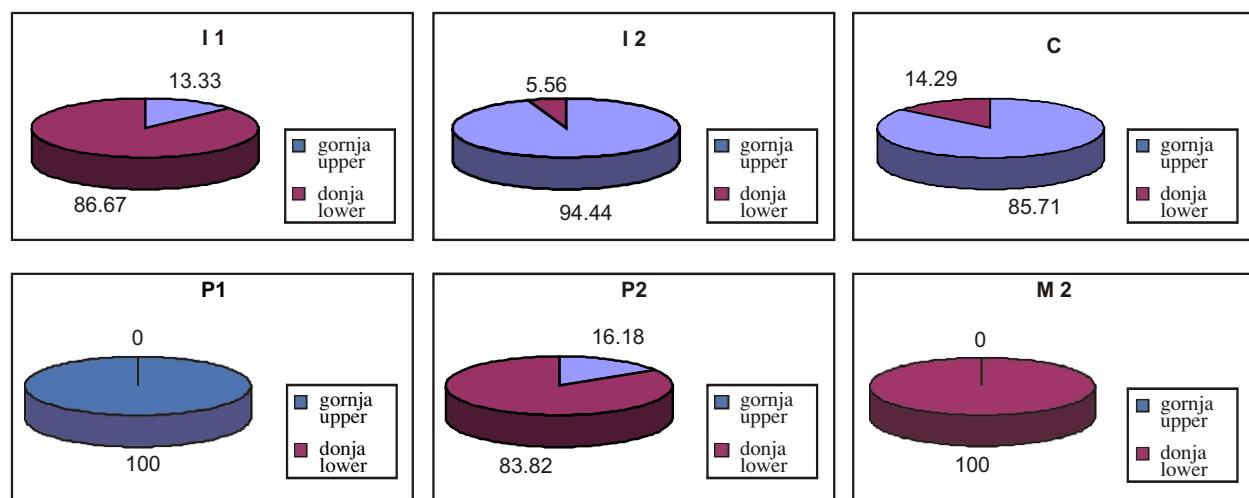
According to the kind of teeth which are missing, we have reached the following results: in the biggest percentage there was presented the hypodontia of the second premolars (53.76%) then lateral incisors (30.65%), lower central incisors (8.06%) while the hypodontia of the other teeth was a sporadic phenomenon (maxillary dog-teeth missing in 3.76%, maxillary first premolars in 2.69%, mandibular second molars in 1.08% cases) while the hypodontia of the first permanent molars as not found). (Graph 3)

On graph 4, there was represented the frequency of hypodontia according to the kind of teeth and localization in the jaws. The second premolars in a much bigger amount of cases are missing in the lower jaw (83.82%). The hypodontia of lateral incisors is dominantly localized in the upper jaw (94.44%), hypodontia of central incisors is much more frequently presented in the lower jaw (86.67%) while



Grafikon 3. Frekvencija hipodoncije po vrsti zuba

Graph 3. Frequency of hypodontia according to the kind of teeth



Grafikon 4. Frekvencija hipodoncije po vrsti zuba i lokalizaciji vilicama  
Graphic 4. Frequency of hypodontia according to the kind of teeth and localization in the jaws

doncija centralnih sekutića je mnogo češće zastupljena u donjoj vilici (86,67%) dok je hipodontija prvih premolara zastupljena samo u gornoj vilici a drugih molara samo u donjoj vilici.

Analiza frekvencije hipodoncije po vrsti zuba i po polu ukazuje na češću pojavu hipodontije kod osoba ženskog pola (I 1 66,67%, I 2 57,89%, C 57,14%, P 1 80,00%, P 2 61,00% IM 2 100%). (Grafikon 5)

hypodontia of the first premolars is represented only in the upper jaw and of the second molars only in the lower jaw.

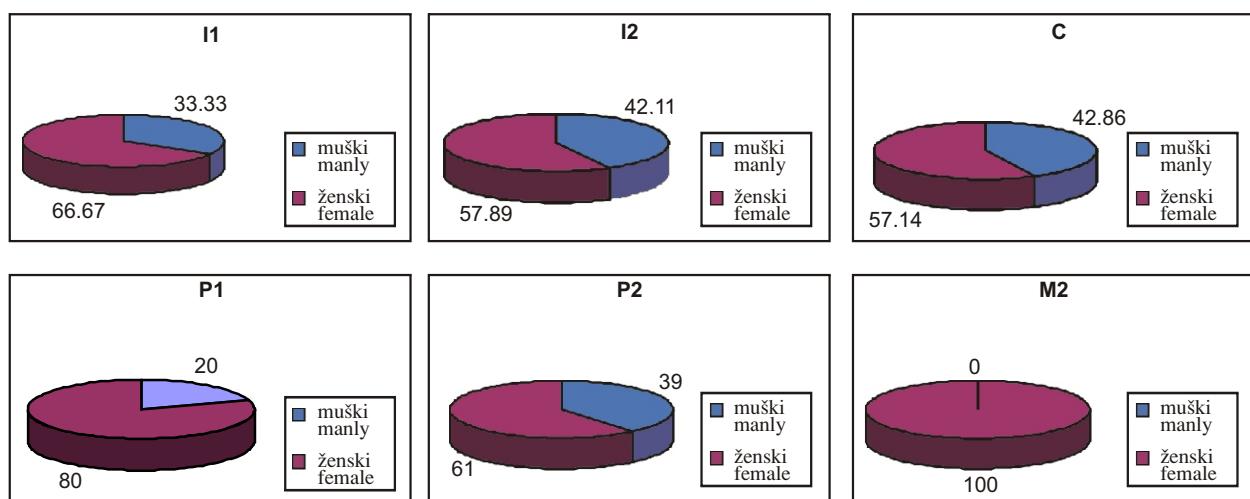
The analysis of the hypodontia frequency according to the kind of the teeth and the sex points to a more frequent occurrence of hypodontia in persons of female sex (I 1 66.67% I 2 57.89%, C 57.14%, P 1 80.00%, P 2 61.00% IM 2 100%). (Graph 5)

## Discussion

The findings coming from this examination point to a growing frequency of the appearance of inborn shortage of one or more teeth. The data from literature show a great variability of the frequency of hypodontia, depending on the examined population, from 2,3 to 9,6%.<sup>2</sup> The percentage of presenting hypodontia in our regions (6,28%) is close to the frequency of hypodontia in Croatian population (5,9%)<sup>3</sup> and in the countries of northern Europe Sweden (6,1%).<sup>4</sup>

## Diskusija

Nalazi proistekli iz ovog ispitivanja ukazuju na sve češću pojavu urođenog nedostatka jednog ili više zuba. Podaci iz literature pokazuju veliku varijabilnost učestalosti hipodoncije, u zavisnosti od ispitivane populacije, od 2,3 do 9,6%.<sup>2</sup> Procentualna zastupljenost hipodoncije u našem podneblju (6,28%) približna je frekvenciji hipodoncije kod hrvatske populacije



Grafikon 5. Frekvencija hipodoncije po vrsti zuba i pola  
Graph 5 frequency of hypodontia according to the kind of teeth and sex

(5,9%)<sup>3</sup>, i u zemljama severne Evrope-Švedskoj (6,1%)<sup>4</sup>, Finskoj i Islandu (7,9%)<sup>5</sup>. Znatno odstupanje nalazimo od rezultata ispitivanja u Austriji i Švajcarskoj (9,6%).<sup>5</sup> Najveći procenat hipodoncije stalnih zuba od čak 15,6% utvrđen je kod stanovništva Mađarske što se značajno razlikuje od učestalosti hipodoncije na našim prostorima.<sup>5</sup>

U našoj studiji najčešće srećemo nedostatak jednog ili dva zuba (74,84%), što se poklapa sa nalazima Backmana<sup>10</sup> koji nalazi hipodonciju jednog ili dva zuba u čak 90 % slučajeva sa hipodoncijom. Nedostatak tri i više zuba je relativno retka pojava. što se tiče nedostatka pojedinih zuba, po nalazima Grabera<sup>11</sup>, najčešće nedostaju treći molari, koji nisu uzeti u obzir u ovoj studiji, zatim po učestalosti dolaze lateralni sekutići, zatim drugi premolari. Naši nalazi ukazuju na sledeći redosled zuba koji nedostaju: mandibularni drugi premolari, maksilarni lateralni sekutići, mandibularni centralni sekutići, maksilarni očnjaci, maksilarni prvi premolari, mandibularni drugi molari dok hipodoncija prvih molara nije registrovana.

Postavljanje valjane ortodontske dijagnoze, uključujući i eventualnu hipodonciju pojedinih zuba, uz nezaobilaznu pomoć rendgen dijagnostike, neosporno je važno za određivanje pravilne ortodontske terapije iz funkcionalnih, estetskih i fonetskih razloga. Terapija je najčešće veoma kompleksna i zavisi ne samo od broja zuba koji nedostaju već i od lokalizacije i simetrije, uzrasta pacijenta, položaja i stanja ostalih stalnih zuba, raspoloživog prostora u zubnom nizu i dr.

Finland and Island (7.9%)<sup>5</sup>. We find considerable digression from the results of examination in Austria and Switzerland (9.6%)<sup>5</sup>. The biggest percentage of hypodontia of permanent teeth out of even 15.6% was determined in the inhabitants of Hungary which considerably differs from the frequency of hypodontia in our regions<sup>5</sup>.

In our study, we most frequently come across the shortage of one or two teeth (74.84%), which coincides with the findings of Backman<sup>10</sup> who finds hypodontia of one or two teeth in even 90% cases with hypodontia. The shortage of three or more teeth is a relatively rare phenomenon. As concerns the shortage of certain teeth, as per the findings of Graber<sup>11</sup>, the third molars are most frequently missing, which have not been taken into consideration in this study, then, as per the frequency, there come lateral incisors, then the second premolars. Our findings point to the following sequence of the teeth which are missing: mandibular second premolars, maxillary lateral incisors, mandibular central incisors, maxillary dog-teeth, maxillary first premolars, mandibular second molars while hypodontia of the first molars has not been registered.

The placement of a proper orthodontic diagnosis, including a possible hypodontia of certain teeth, with unavoidable help of roentgen diagnostics, it is undisputably important for determining correct orthodontic therapy for functional, aesthetic and phonetic reasons. The therapy is most often very complex and depends not only on the number of the missing teeth but also on localization and symmetry, the age of the patient, position and condition of the other permanent teeth, available space in the teeth sequence etc.

## Zaključak

Na osnovu dobijenih rezultata ispitivanja mogu se izvesti sledeći zaključci:

- 6,28% naših ispitanika ima urođeni nedostatak jednog ili više zuba
- češći je nedostatak zuba kod devojčica (7,06%) nego kod dečaka (5,34%)
- hipodoncija je češća u donjoj vilici (41,21%) u gornjoj vilici je zastupljena sa 32,90% dok istovremeno u obe vilice hipodoncija se javlja kod 25,81%
- broj zuba koji nedostaje kretao se od 1 do 11, s tim što je većina dece imala nedostatak jednog (40 %) ili dva zuba (34,84%). Samo jedan dečak imao je nedostatak 11 zuba (0,65%)
- najčešće nedostaju drugi premolari (53,76%), češće donji, zatim gornji lateralni sekutići (30,65%) i centralni donji sekutići (8,06%)
- hipodoncija ostalih zuba je relativno retka pojava
- sve češća pojava hipodoncije upućuje na važnost rane dijagnoze i pravilne ortodontske terapije iz funkcionalnih, estetskih i fonetskih razloga.

## Conclusion

Based on the received results of examination, the following conclusions can be made:

- 6.28% of our examinees has an inborn shortage of one ore more teeth
- the shortage of teeth is more frequent in girls (7.06%) than in boys (5.34%).
- hypodontia is fore frequent in the lower jaw (41.21%), in the upper jaw, it is represented with 32.90% while simultaneously in both jaws hyodontia appears with 25.81%.
- the number of the teeth missing ranged from 1 to 11 while the majority of the children had shortage of one (40%) ore two teeth (34.84%). Only one boy had shortage of 11 teeth (0.65%).
- most frequently there are missing the second premolars (53.76%), more frequently lower, then the upper lateral incisors (30.65%) and central lower incisors (8.06%).
- hypodontia of the other teeth is a relatively rare phenomenon
- the growing occurrence of hypodontia points to the importance of an early diagnosis and proper orthodontic therapy for functional, aesthetic and phonetic reasons.

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