

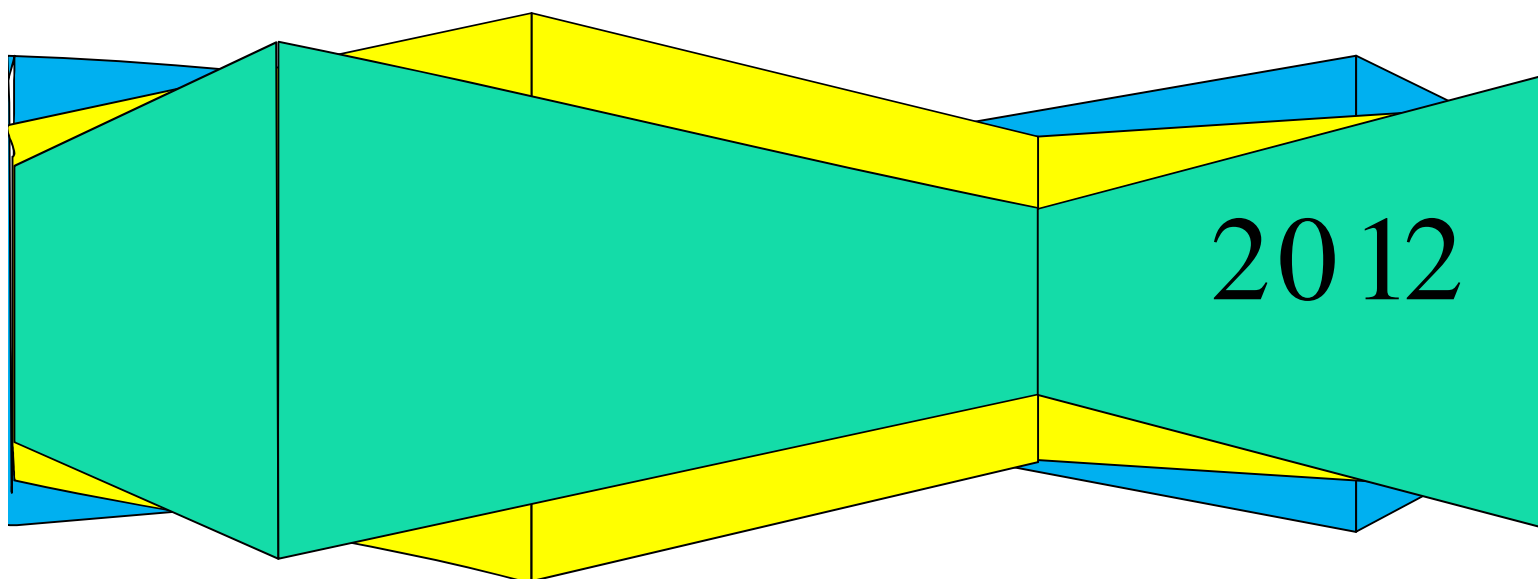
University "Ovidius" Constanța
Faculty of Medicine

Summary of Thesis

Value of clinical-surgical methods of reconstruction of partial nose defects

Doctorand: Andrei Liliana

Scientific coordinator: Prof.Univ. Dr. Ion Bordeianu



CONTENTS

The General Part

Capitolul I	5
Argument	5
Capitolul II	7
Historical	7
Capitolul III	10
Embryology and Anatomy of the Nose.....	10
Development of Head and Neck	10
Development of the Face	11
Derivatives Buds Facial.....	12
Development of the Nose	16
Surgical Anatomy of the Head and Face	17
Topographic Regions of the Face	21
Capitolul IV	26
Surgical Reconstruction of Defects of the Head and Face	26
Free Skin Plasty.....	27
Flap Surgery.....	30
Flaps Classification	33
Types of Flaps Used on Cephalic Extremity	35
Capitolul V	63
Surgical Reconstruction procedures in Partial Nose Pyramid Defects	63
Topographical Indications	69
The Selective bibliography	77

The Personal Part

Capitolul VI	85
General Considerations	85
Capitolul VII	89
Material and Method Work	89
Capitolul VIII	96
Results	96
Capitolul IX	159
Discussion	159
Capitolul X	168
Personal Contributions	168
Capitolul XI	172
Clinical Cases	172
The Selective bibliography	183
Capitolul XII	188
Conclusions	188
The General Bibliography	191

Keywords: partial defects, nose pyramid, skin autotransplantation, plastic, reconstructive, therapeutic algorithm.

ARGUMENT

Nasal pyramid, through its role in shaping the physiognomy and its position in the center of the face, or to correct its morphofunctional restoration, restore Mental those who by accident or by necessary excisions feel complex family and / or company [1].

The nose is the essential element of physiognomy [3] but is also an important part of the respiratory tract and to achieve a fair fonații.

Rising incidence of partial nose defects from various causes: trauma, wounds bitten especially following surgical excision imposed by frequency and growing skin tumors and associated soft tissues - above all - the vast array technical and surgical procedures used in plastic surgery has made to date can be positively solved problems reconstructive surgery that 2-3 decades ago seemed impossible. So here is sufficient arguments to justify the choice of such clinical research topics, medical and surgical.

This paper aims to present an overview of reconstructive possibilities for partial tissue defects of the nose from anatomical and surgical data known so far and can see real clinical value of various surgical procedures.

SURGICAL METHODS OF DEFECTS RECONSTRUCTION IN THE HEAD AND FACE

Complex trauma, serious in the head, as well as malignant tumors at the same level, may give rise to skin and soft tissue defects important, even after correct surgical treatment [32]. Depending on the complexity and importance of the region concerned and the nature of trauma will require a cover quality and / or reconstruction of any damaged organ (eyelid, nose pit, jaw, etc.).

PLASTIC FREE SKIN

Autograft or skin graft from the same individual is a segment of the dermis and epidermis transferred from one region to another body, which is completely detached during transfer and lose any connection to the donor. By definition, a graft movement lacks its own. No matter how thin it is, but it possesses intrinsic vascular network that is able to connect to the receiving vessels transplanted area.

From the sixth day, graft revascularization is restored and strengthened until about the ninth day, when the socket can be considered closed. Coloring coloring approach graft skin graft donor area thick, thin grafts reddish pink remains visible through the transparent capillary bed [34].

Factors affecting graft outlet are: quality bed receiver receivers and accurate contact between the graft and immobilization.

Depending on the aim and characteristics of the receiving area, skin graft is used in two forms:

- ☐ split skin graft consisting of the epidermis and a variable amount of dermis;
- ☐ total skin graft consisting of the epidermis and the entire thickness of the dermis.

If in addition to skin graft contains other tissues (subcutaneous tissue, cartilage, etc.), then the graft is called composite.

Skin grafts are now available to all surgeons. Indicated and used correctly, they always fits, but the essential condition of their outlet there is a corresponding receiver bed. bed in situations where the receiver meets the conditions to be covered with grafts, flaps are saving solution.

FLAPS SURGERY

Surgery to flaps open unexpected doors sometime in the possible defects in material coverage. By deciphering skin vascular circulation changed flaps knowledge, increasing the unexpected possibilities of using them. Transpoziționat or transferred, neighboring or remote, flap - simple or composite - is the specific method of plastic surgery that is in focus.

In flap surgery there are some general principles apply to any type of flap, and a set of principles specific to each flap individually. below we will quickly review the general principles listed schematic and fast.

Postoperative care and follow up is as important as the surgery, following clinical and paraclinical monitoring (oximetry, skin temperature, etc..) Is essential for capturing the time of possible complications.

Another very important principle is to select the flaps surgery patients. Necessary for the patient to understand the risks and to judge the results, the possibility of cooperation essential to it. Also be taken into account psychological state of the patient, a mentally unbalanced patient is removed from the beginning of such a delicate and complicated intervention.

There are several risk factors for flap surgery to be taken into account in deciding operators. As follows:

- ☐ diabetes with its corollaries, arteriopathy and neuropathy are of a very high risk
- ☐ irradiated territory is suitable for cutting flaps.
- ☐ infection is a frequent cause of loss of a flap, and the most common cause of flap ischemia occurrence of infection
- ☐ flaps insensitive neinervate will have reduced functionality, even if they have a good vascular status
- ☐ smoking is also a cause of flap loss due pressor and ischemic effects of nicotine. Its effects on microcirculation persist several weeks after smoking cessation
- ☐ cold can also compromise the surgery, especially with the use of microsurgical procedures. Therefore the ambient temperature must be adjusted surgical needs.

In conclusion, let us review the selection criteria of the flap.

FLAPS CLASIFICATION

Flaps can be defined as simple tissue fragments (cutaneous-fat) or compound (containing anatomical structure and other elements such as fascia, muscle, tendon or bone), which are used to cover defects in the vicinity or away from the defect and which are characterized by a pedicle nutritional element. Nutrient vascular pedicle source is what ensures survival and it may be temporary (to be established vascular connections between the receiver and the flap bed) or permanently.

Depending on defining elements of the flaps, they can be classified in several ways:

- ☐ in terms of anatomy:
 - one-cutaneous flaps Gras
 - one fascial-cutaneous flap
 - one muscle flaps
 - musculo-cutaneous flaps one
 - one osteo-myo-cutaneous flaps
- ☐ in terms of vascular, cutaneous-fat flaps are divided into:
 - one flap with random traffic
 - one axial flaps with vascular element defined

- in terms of flap position to defect, flaps may be:
 - one neighborhood flaps
 - one remote flaps
- in terms of form are:
 - one flat peninsular flaps
 - one island flaps
 - one flap cylindrical tubulizate
- after commuting the flaps, they may be:
 - one flap transpoziționate
 - one transferred free flaps, they have restored the continuity of the vascular and nerve microsurgical methods
- in terms of nutrient pedicle are:
 - one pedicle flaps with temporary
 - one nutrient pedicle flap with permanent
- direction in terms of the intake stroke:
 - one flap to direct traffic
 - one reverse circulation flaps on the direct flow flaps, pedicle flap is cranial. this flap blood supply and emptying are in normal driving conditions, while the reverse flaps, normal flow is reversed, nutrition being performed by "retrograde filling" made possible by distal vascular anastomoses between different territories.

SURGICAL RECONSTRUCTION PROCEDURES OF PARTIAL NOSE DEFECTS

Directed healing is possible on a well vascularized bed (subcutaneous tissue, muscle, periosteum, pericondru). The method is bad, assuming daily dressing. Edge retraction loss of substance may be unsightly in some regions.

Skin suture direct: direct suture fuziformă a loss of substance is possible only if located in high nose (wings, tip and columella are excluded), and if the skin defect is small.

Regional Flaps

- Region cheeks, large skin laxity, cross advancements used to cover losses of substance of the lower face side of the nose. The upper edge of the flap is rebordul lower orbital and naso-ditch bottom edge is gentian. The drawback of this method is to cover natural groove which separates cheek nose [6-12].

Nasopharyngeal region gentian, richly vascularized and good skin laxity, has many uses:

- ~ Forward with subcutaneous pedicle and VY closure to cover a loss of substance on the side of the nose.

- ~ Pure horizontal forward with excision of two large triangles, top and bottom, to cover a loss of material non transfixiante nasal wing.

- ~ Transposition with superior pedicle to cover the side and / or nose wing.

Local Flaps: nose using skin are mobilized on the basis of rotation, advancement or transposition. Are generally designed to cover losses of small substance:

- subcutaneous pedicle flap forward with:
- Rieger flap (1967) - rotation flap using skin around the nose,
- vertical advancement flap, the dorsal nose:

- rotation flap Emmett (1977): Empowering rotation
- flap Ribka (1983) - Forward flap, musculocutaneous, transverse muscle fibers of the nose;

- transposition flaps: LLL, Z, etc. ...

Remote Flaps: if loss of substance nose is large and / or located in the lower third (nose, wings, columella), its coverage must be provided with a flap away, forehead donor area is excellent for nasal reconstruction, major flaps are known :

- Scalp flap;
- Front flap median
- Front flap obliquely
- over-eyebrow flap Schmid
- New flap.

Grafts: as if guided healing grafts are not possible unless there is a good vascularity of the recipient bed.

Composite grafts:

- Chondro-cutaneous grafts
- Graft-cutaneous fat.

GENERAL CONSIDERATIONS

Anatomic central element of the face, nose, represents the key element in achieving and contouring physiognomy and expression - in the relational sense - the individual's personality.

Each individual believes that his nose its shape and the way in which lies the whole facial anatomy disrupt this whole suffers when its appearance changes caused by various pathological conditions: trauma, malformations, defects postexcizionale [1-3], etc.. .

This paper is to prioritize value prpune surgery - clinical procedures reconstrucție multiple partial defects of the nose taking into account local anatomical factors such as:

- ☐ regional vasculature,
- ☐ extent and location of defects,
- ☐ presence of local infection,
- ☐ sex,
- ☐ poor general condition and defects existing
- ☐ patient desire,
- ☐ exposure or damage to deep structures,
- ☐ regional radiation therapy,
- ☐ doctor skills and experience.

MATERIAL AND METHOD WORK

Presented study aims to elucidate the value of each surgical procedure known and used in reconstructive surgery of the nose but especially in solving partial tissue defects of the nose.

In terms accesst we started from the fact that the study group will be included only where the defect area is between 0.5 and 8 cm² but that other defining criterion is that the depth range between 2 and 6 mm being interesării also conditioned by the absence of deep structures of the nasal pyramid.

We chose these criteria because such patients represent the vast majority of cases they encountered in daily practice both painter and Otorhinolaryngology and especially the

fact that although these cases need to solve relatively simple surgical procedures they usually conduct at the largest secondary aesthetic drawbacks, which will be demonstrated by this study.

This study is a retrospective according to their definition in terms of medical and scientific methodology extends the time 01.01.2007 - 31.12.2011 (ie a period of five calendar years) and includes a number of 456 hospitalized cases diagnosed and treated in the clinic of plastic surgery and reconstructive microsurgery in Constanta County Emergency Hospital.

The study group consists of 456 patients was conducted after all patients admitted and treated in the clinic of plastic surgery and reconstructive microsurgery in Constanta County Emergency Hospital were selected after a series of criteria including criteria for inclusion in the group of study were the:

1. Volume of soft tissue defects of the nose does not exceed 30% of its volume
2. Patient age is 16 years
3. Were included in the study group patients of both sexes.
4. Etiology partial nasal pyramid defects be achieved by: posttraumatic defects, defects postexcizionale, bitten wound defects after all these defects can be solved both emergency surgical repair and a second time (cold).
5. Postexcizionale defects can be achieved either by excision of malignant or benign tumor.

METODA DE LUCRU

For each patient included in the group's research has produced a document containing personal data were then used in statistical processing of the batch to the study findings.

The data contained in the individual file are the following landmarks:

1. Age.
2. Sex.
3. Ocupaion.
4. Hospitalization period.
5. Etiology partial defect of nose soft parts: direct traumatic, postexcizională for benign tumor, malignant tumor postexcizională for, defects resulting after bitten wounds (animal or human).
6. Time to proceed to the reconstruction of soft tissue defect partially or primary recovery, delayed primary or secondary.
7. Membership in urban or rural.
8. Partial defect severity towards achieving a defect superficial (skin) or mixed defect (cutaneous cartilage).
9. The nose is placed in soft tissue defect: wing nasal apex nasal nasal dorsal (dorsum nasi), the nose, nasal filter, ditch nasogenian or related areas since, at least in theory, each region can benefit from a reconstruction of a reconstruction procedure that is specific to bring maximum beneficii (functional and aesthetic) to the reconstruction and minor deficiencies in the donor area (where applicable).

RESULTS

This study is a retrospective that spans time 01.01.2007 - 31.12.2011 (ie a period of five calendar years) and comprises a total of 456 hospitalized cases diagnosed and treated in

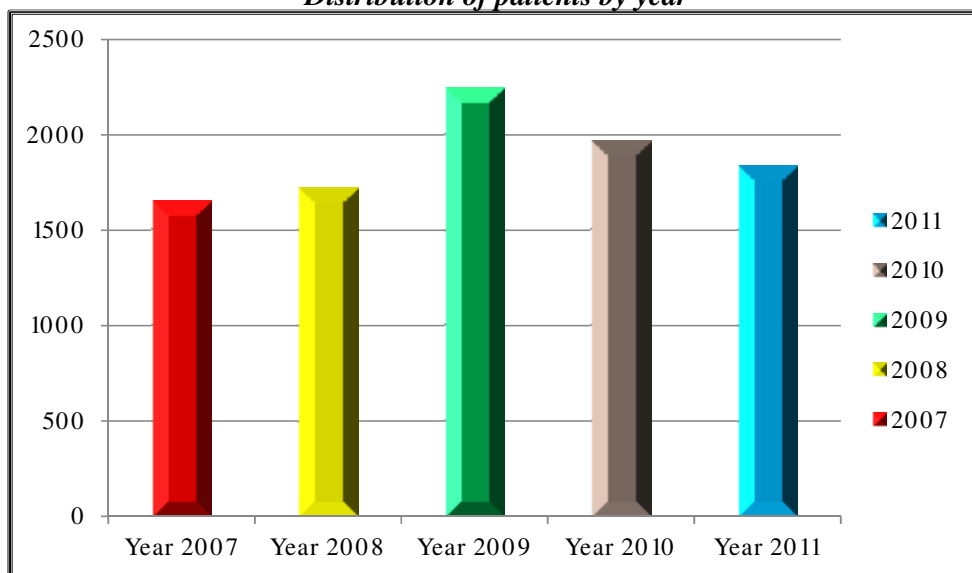
the clinic plastic surgery and reconstructive microsurgery in Constanta County Emergency Hospital.

In the period January 2007 - December 2011 were hospitalized in the Department of Plastic Surgery and Burns Clinic of Constanta County Emergency Hospital 9422 patients.

Patient distribution by year was as follows:

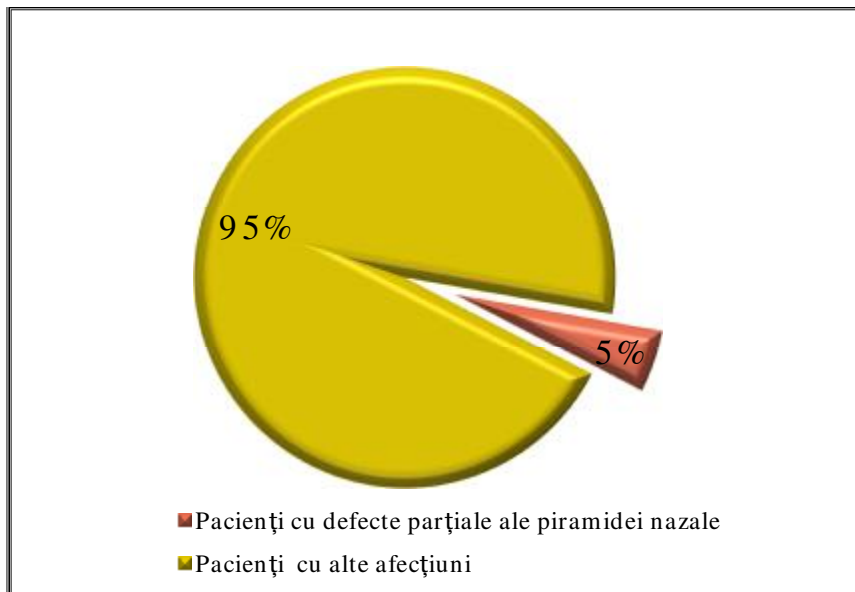
- Year 2007 = 1650 patients
- Year 2008 = 1721 patients
- Year 2009 = 2247 patients
- Year 2010 = 1,967 patients
- Year 2011 = 1837 patients

Distribution of patients by year



YEAR	PATIENTS
2007	1650
2008	1721
2009	2247
2010	1967
2011	1837

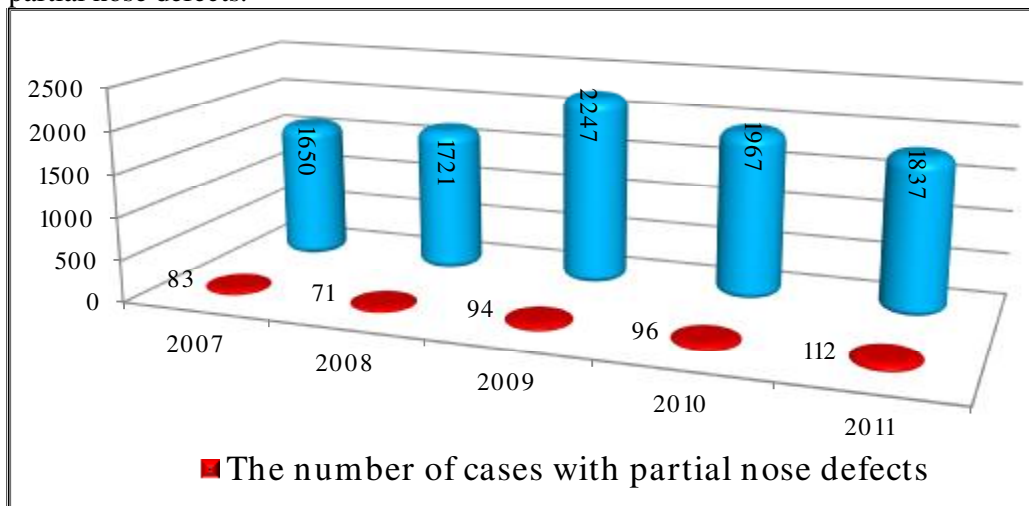
From a total of 9422 patients admitted in the clinic, a total of 456 cases were diagnosed with partial nose defects and treated in the clinic of plastic surgery and reconstructive microsurgery in Constanta County Emergency Hospital.

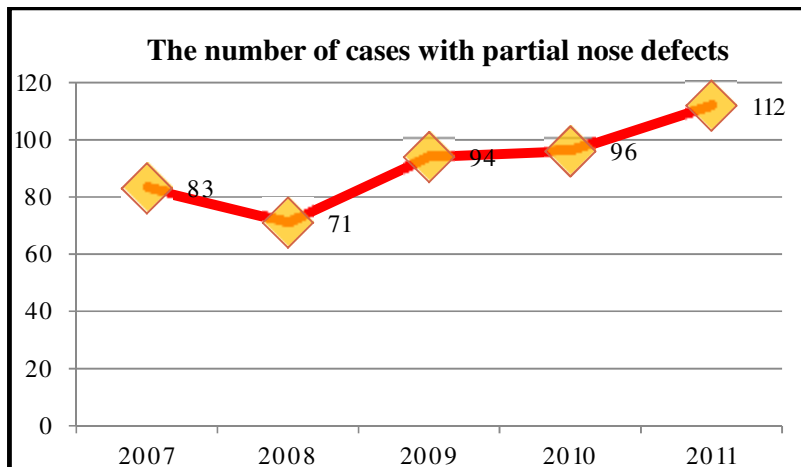


Their distribution by year afost next:

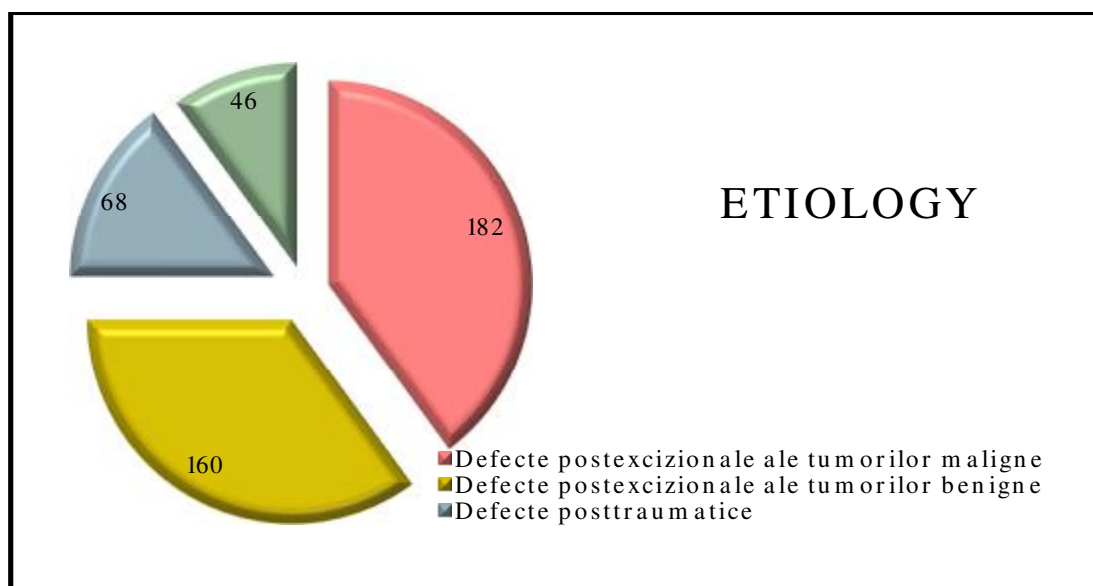
YEAR	CASES
2007	83
2008	71
2009	94
2010	96
2011	112

Compared to the total number of patients in those years a slight increase in the incidence of partial nose defects.





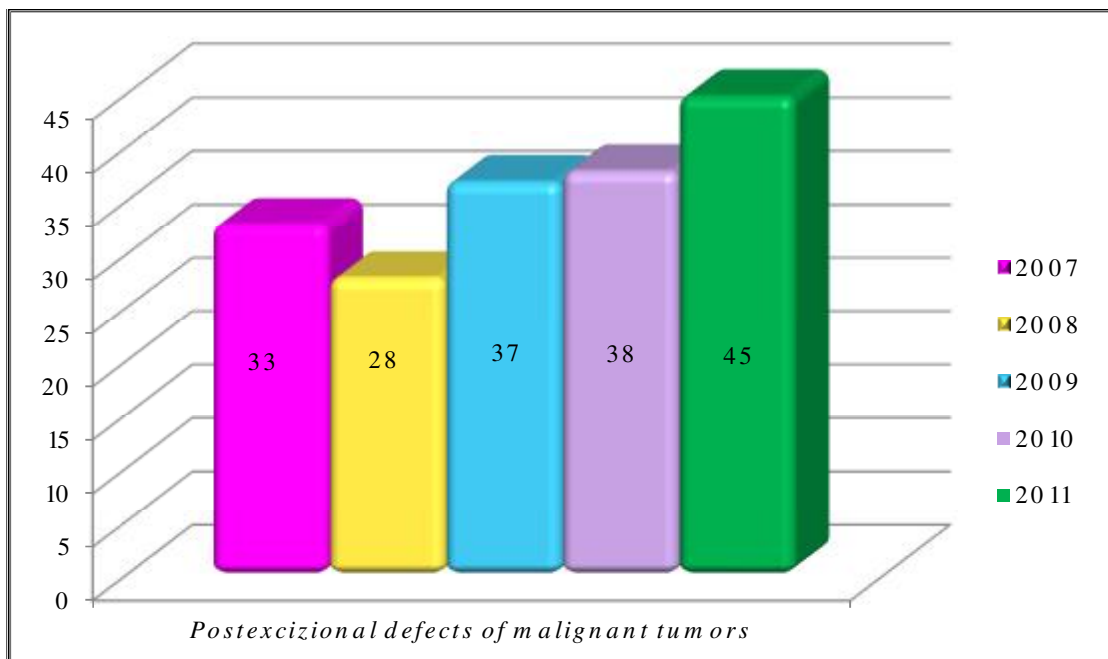
YEAR	2007	2008	2009	2010	2011
CASES	83	71	94	96	112



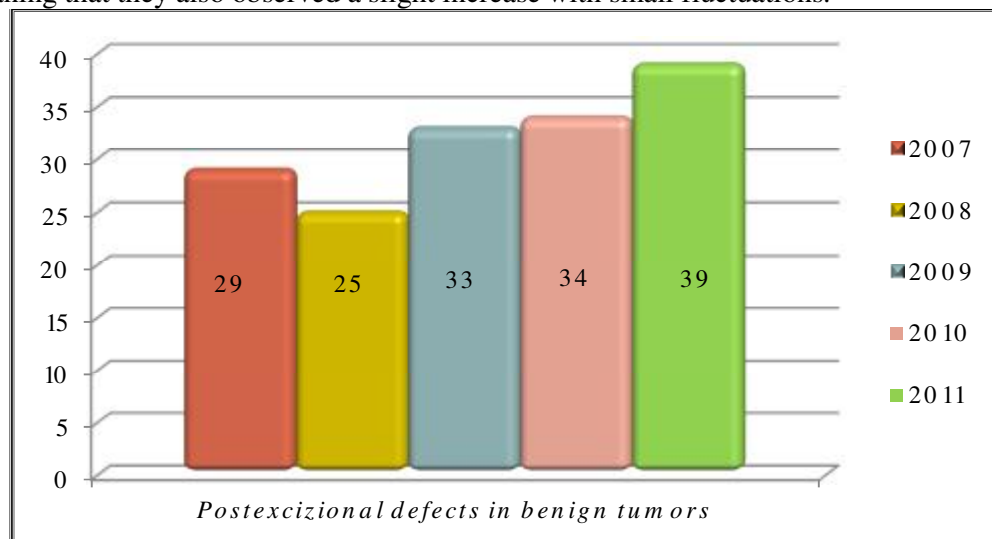
Etiology partial nasal pyramid defects is represented by: postexcizionale defects, defects and defects traumatic wounds after being bitten.

Distribution by years of each etiologies in part I tried to render graphics as representative but also easy to follow and the conclusion.

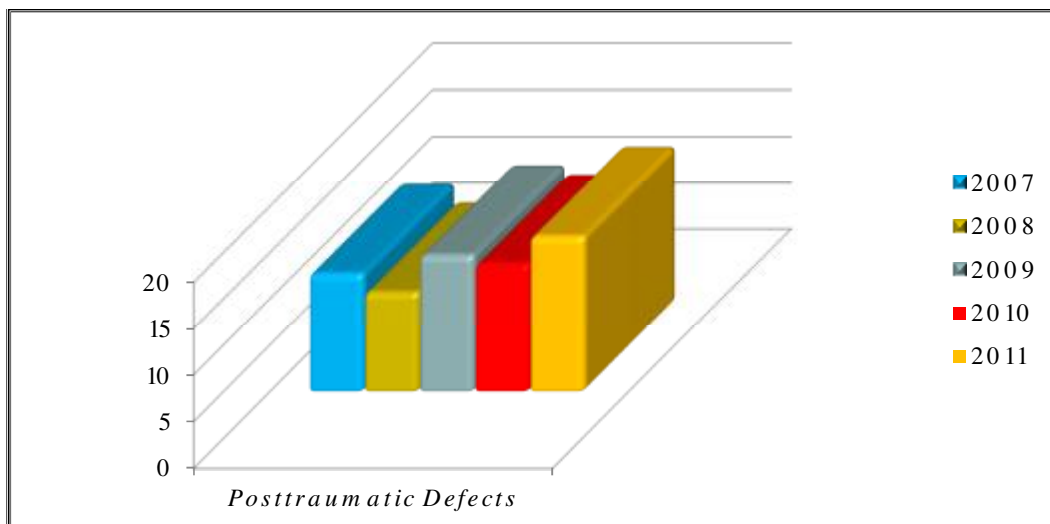
As the following chart we oserva of malignant tumor incidence is increasing, the result tends to be generally available in all clinical retrospective or prospective cohort in recent years.



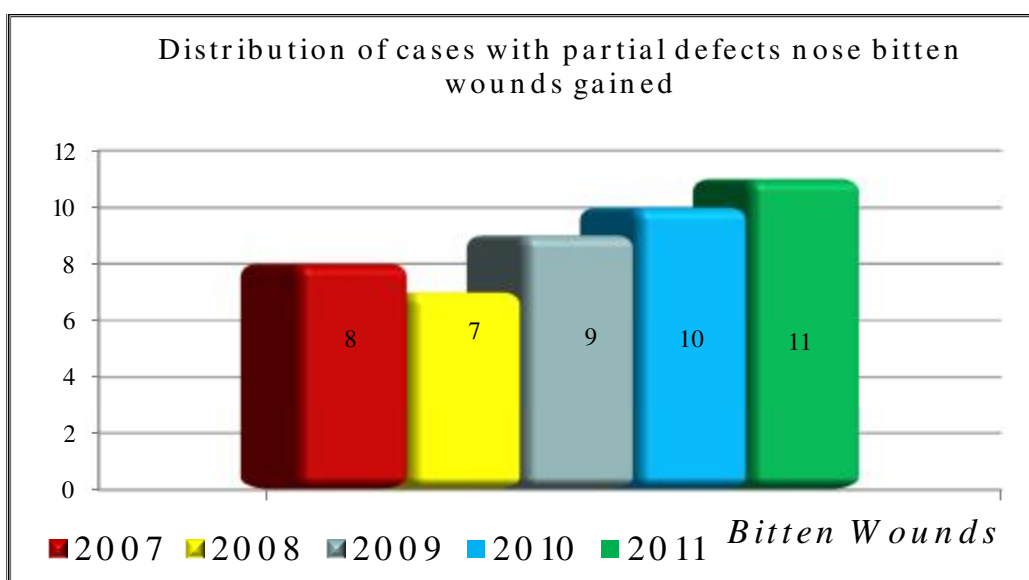
Etiology partial nose defects represented by defect of benign highlighted graphically postexcisional not differ greatly from that of malignant tumors postexcizionale defects, meaning that they also observed a slight increase with small fluctuations.



Posttraumatic defects also have, as the other two previous etiologies, but an upward trend with a slope of more moderate growth.



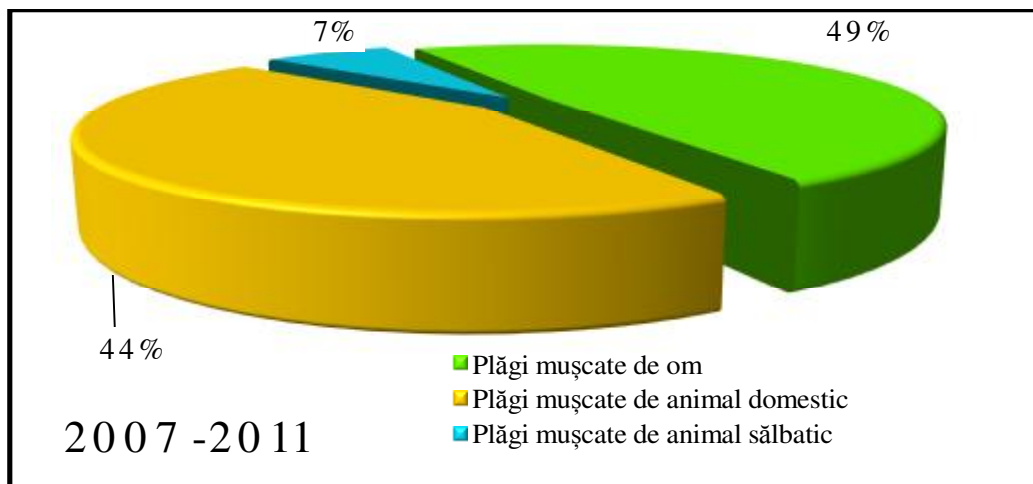
Such defects traumatic etiology, but with a much slower rise in the number of cases, but still an increase, we see in the case of partial failure etiology nose bitten by plague.



In what follows we aim to highlight the correlation of all etiologies partial nose defects surveyed each year in part throughout the study.

As shown defects postexcizionale malignant tumors are the most numerous, followed by malignant tumors postexcizionale faults, defects and finally the trauma caused by plagues bitten.

Partial failure etiology on the nose bitten wounds must be subdivided according to the factor aggressed and see that we are dealing with three subcategories: man-bitten wounds, wounds bitten by domestic animals and wild animal mușcatede wounds.



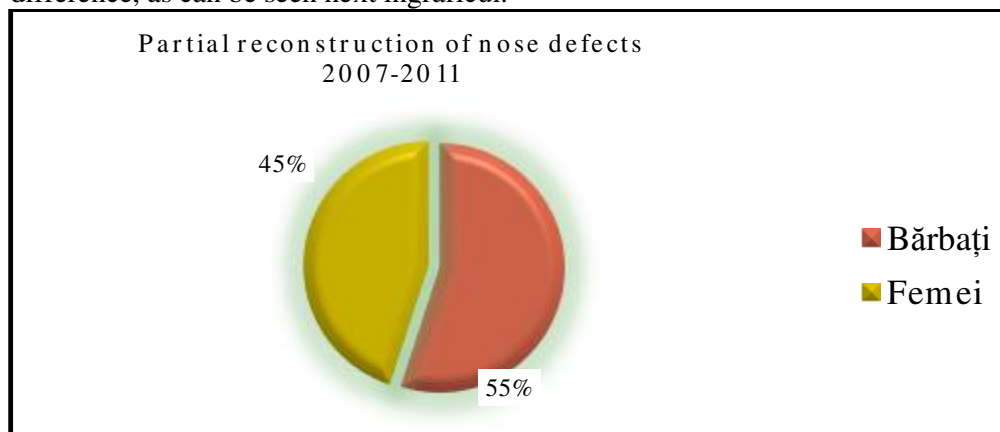
We can see that the bitten animal plagues dominated the domestic animal bitten, and the humans are bitten by an almost equal percentage of those bitten deanimal.

From the chart below we see that both men and women are equal proximativ percent of punctuldevedereal etiology of wounds bitten by the animal.

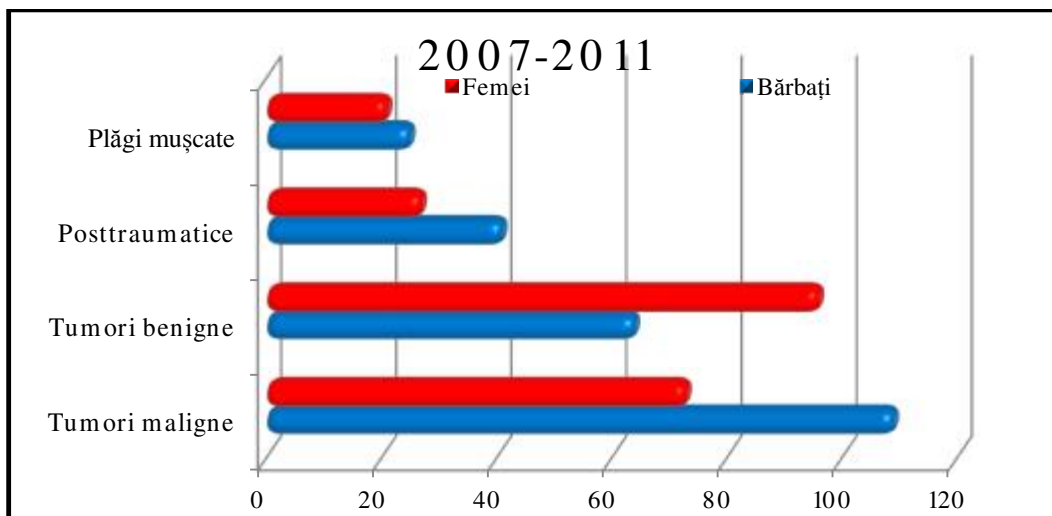
As wounds bitten by man, we can say that the women included in this study have not bitten wounds of defects generating partial nasal pyramid.

Except for one year that was mostly female, men, in all other years were a slightly higher percentage.

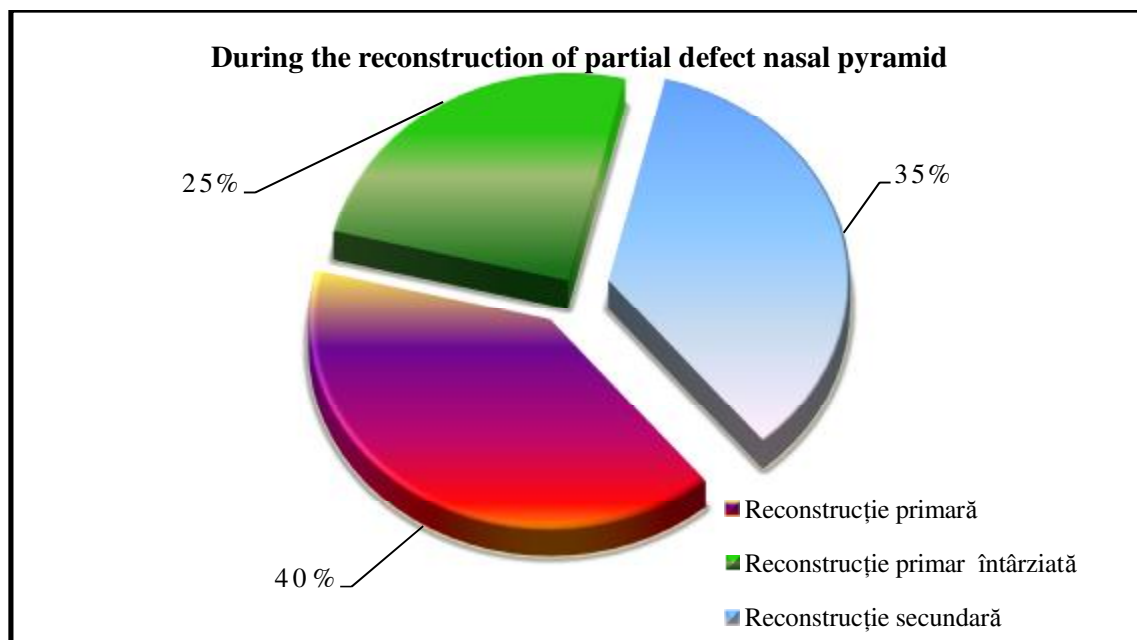
Throughout the period of study is majority gender distribution for males, but not big difference, as can be seen next îngraficul.



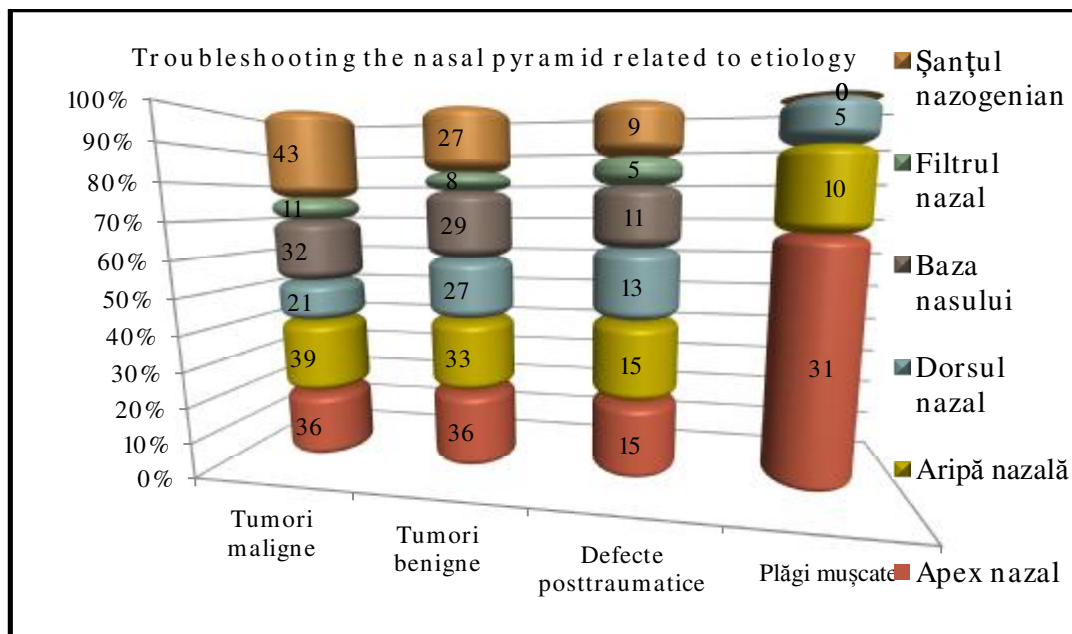
Gender distribution of etiologies in each part shows that male sex is mostly for data defects malignant tumors, for women to be in a higher percentage of benign tumors postexcizionale defects.



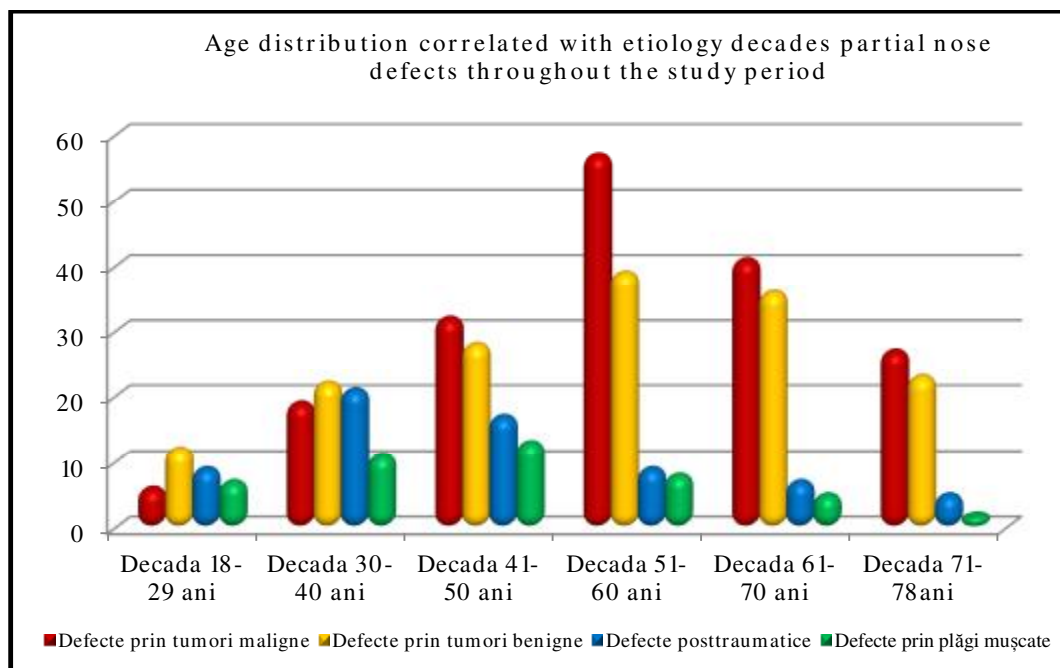
As a way of reconstruction in terms of time where intervention is performed reconstructive cases studied fall into three categories according to the following: primary reconstruction, reconstruction delayed primary and secondary reconstruction. They are used in percentages shown in the chart below.



As part of the nasal pyramid locate faults we see in the chart below, which is predominant in mind that the apex Fault particularly defects in wound etiology bitten.



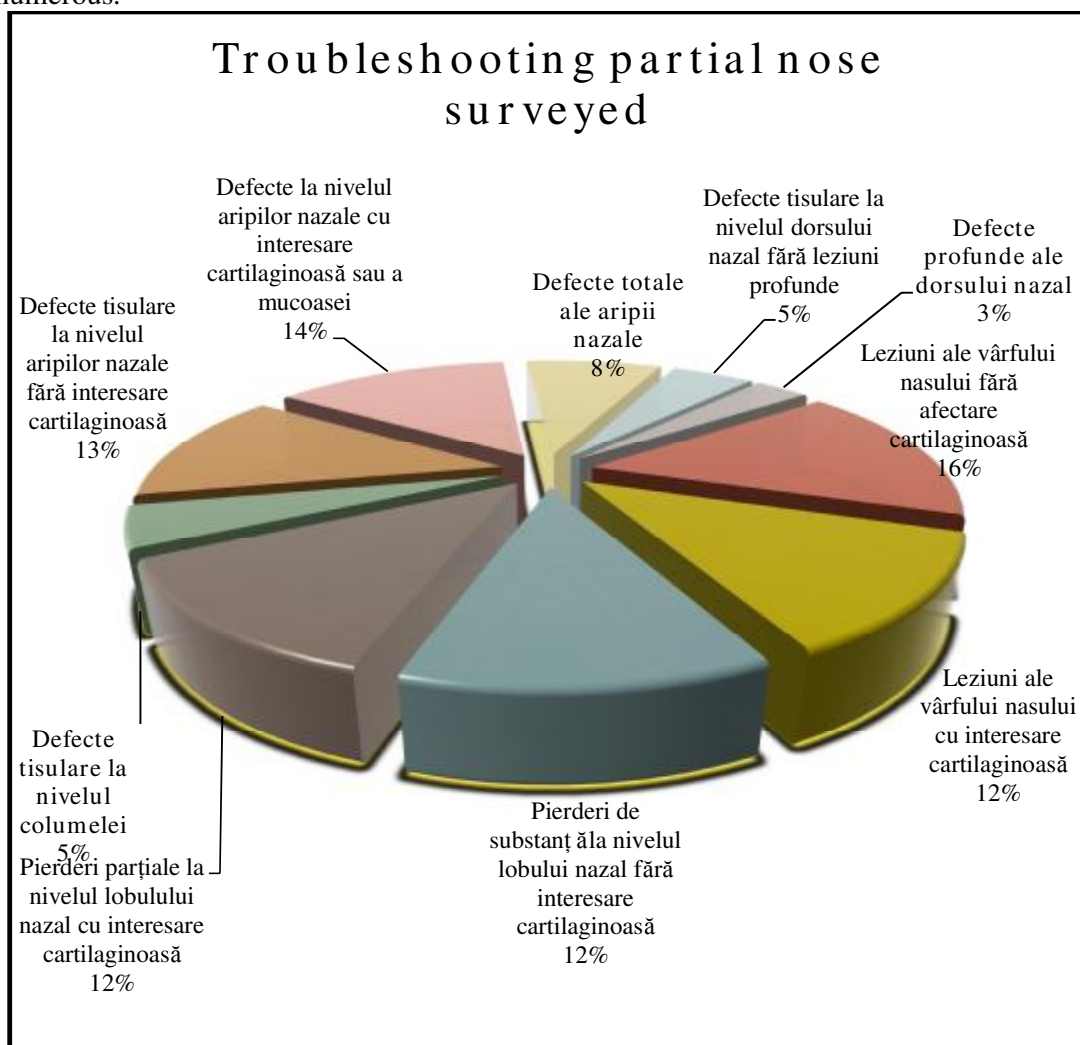
About partial nose defects of traumatic etiology can say that the study is classified into four subcategories Defat de etiologii ie defects caused by precipitation, defects caused by contact with sharp objects, damage caused by abrasion or explosion and accidents associated defects. Of which the most common in the present study are those produced by precipitation.



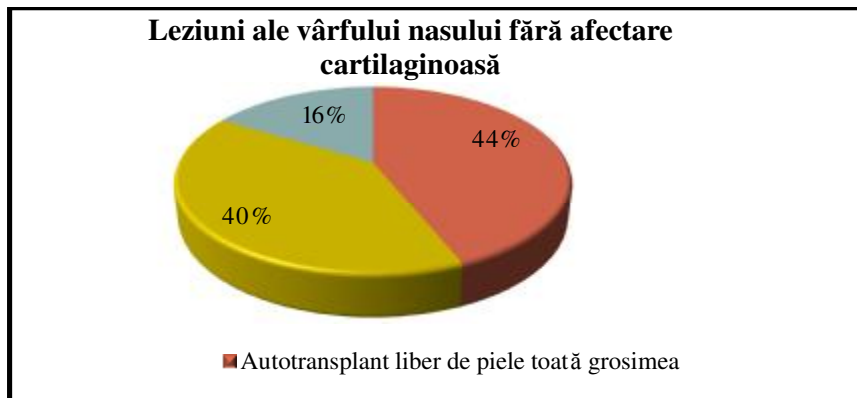
From the above chart we could identify peak incidence in the decade 51 și aged 60 years, due to the greater number of defects due to malignant postexcizionale, etiology which has a peak age in this decade.

Partial nose defects postexcizională etiology of malignant tumors and wound etiology by geraniums are more common in patients from rural areas in this study, because defects postexcizionale benign tumor and trauma have a higher incidence among patients coming from rural areas.

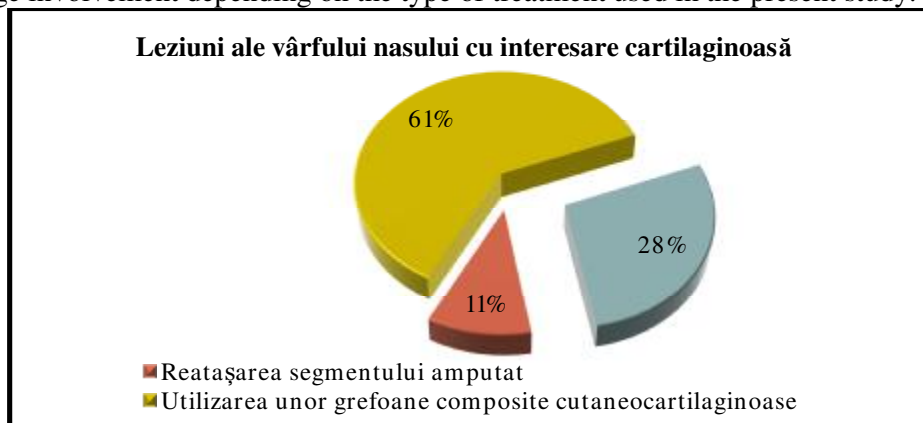
Partial nose defects postexcizională tumor etiology is more common among patients with higher, perhaps due to the awareness and understanding of risk that they are exposed to the doctor for failure detection when a tumor. And for defects and traumatic etiology bitten wounds invesează situation in that patients with general secondary education and are more numerous.



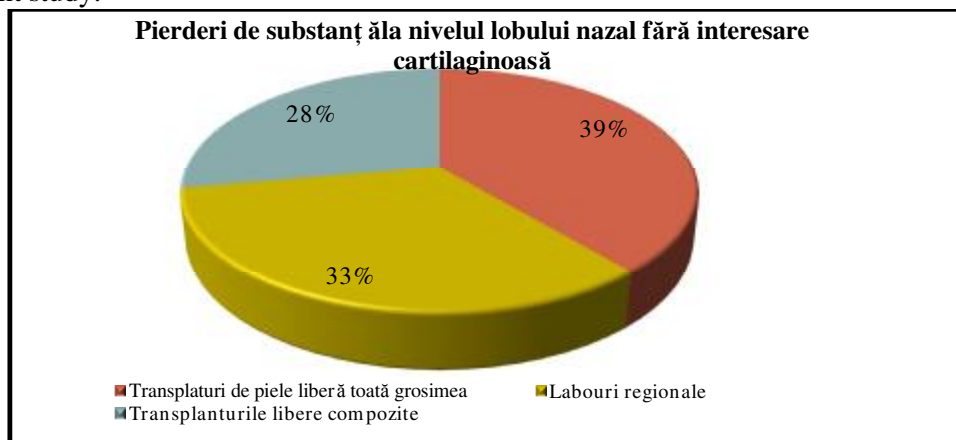
Graphical representation of the number of patients with lesions of cartilage damage nose without depending on the type of treatment used in the present study.



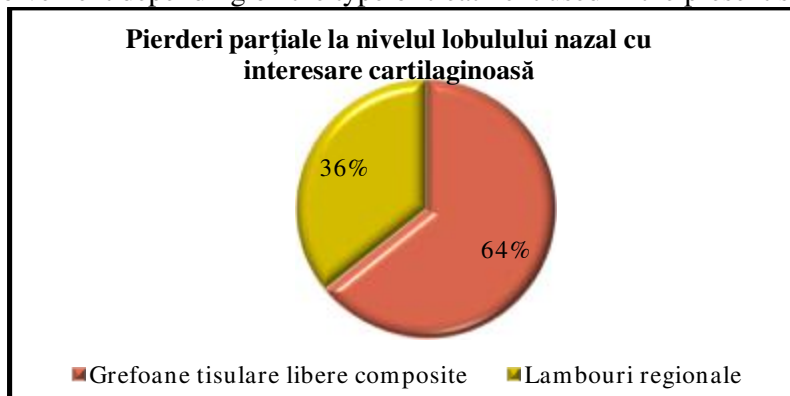
Graphical representation of the number of patients with lesions of the nose with cartilage involvement depending on the type of treatment used in the present study.



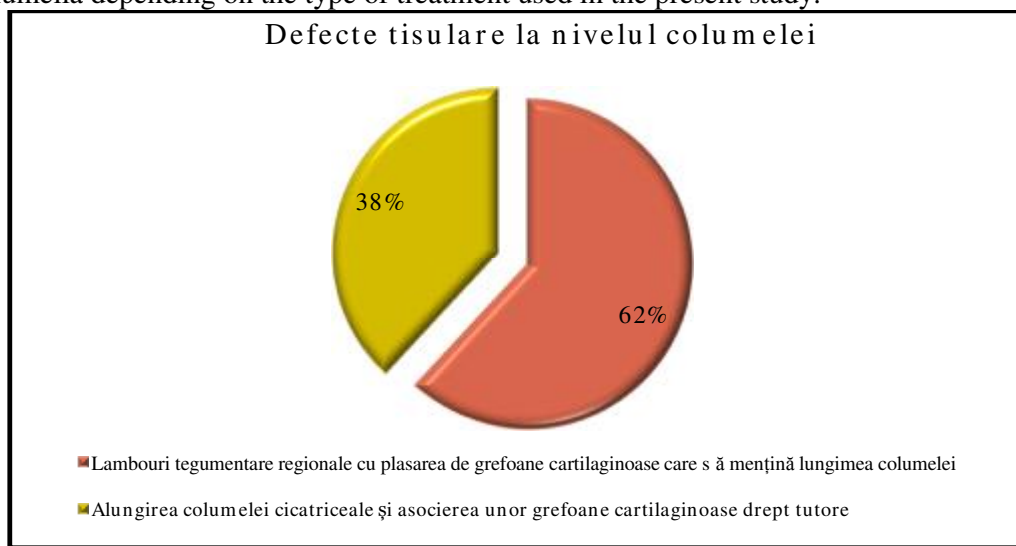
Graphical representation of the number of patients with loss of substance in the cartilaginous nasal lobe without involvement depending on the type of treatment used in the present study.



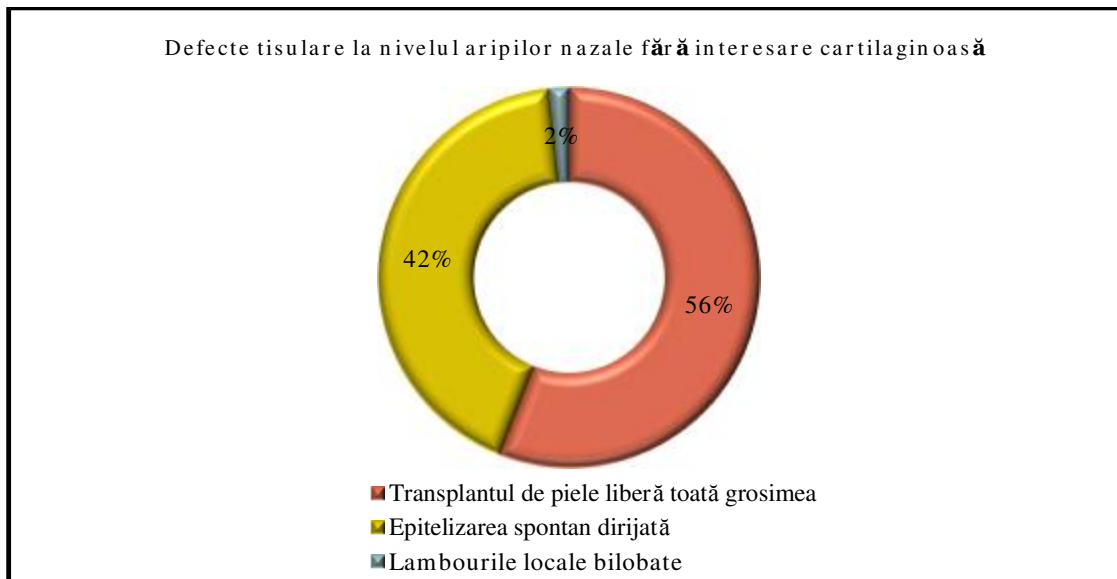
Graphical representation of the number of patients with nasal lobe partial loss of cartilage involvement depending on the type of treatment used in the present study.



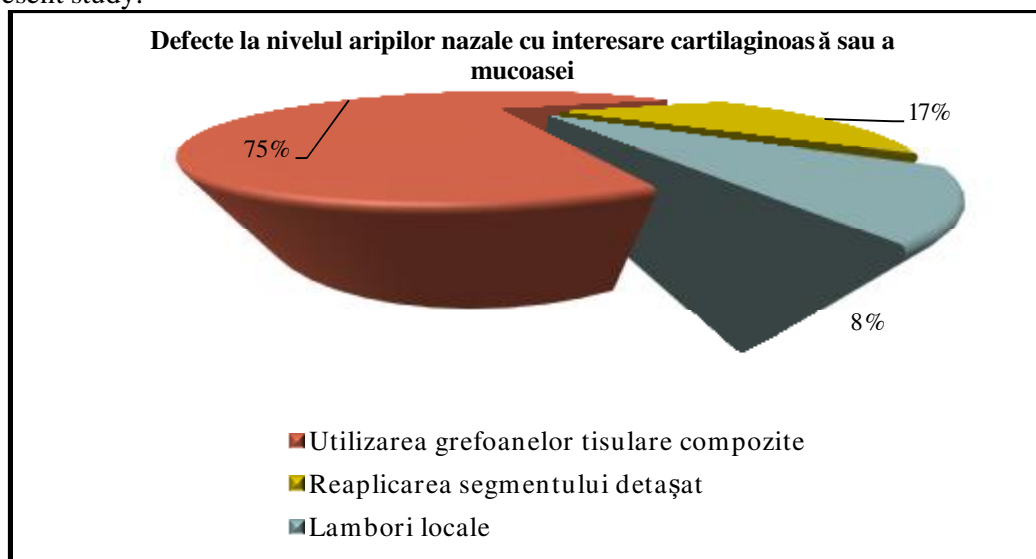
Graphical representation of the number of patients with tissue defects in the level of the columella depending on the type of treatment used in the present study.



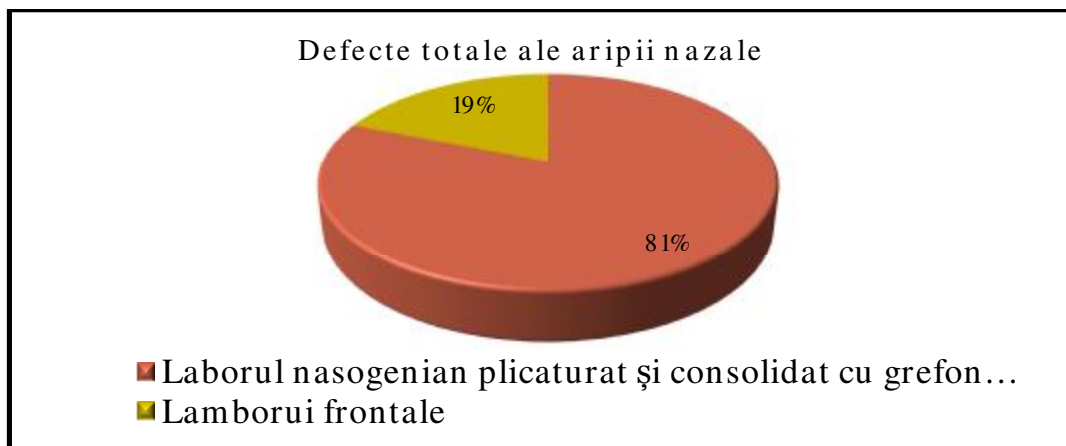
Graphical representation of the number of patients with tissue defects in the nasal wings without cartilage involvement depending on the type of treatment used in the present study.



Graphical representation of the number of patients with defects in the wings or cartilaginous nasal mucosal involvement depending on the type of treatment used in the present study.



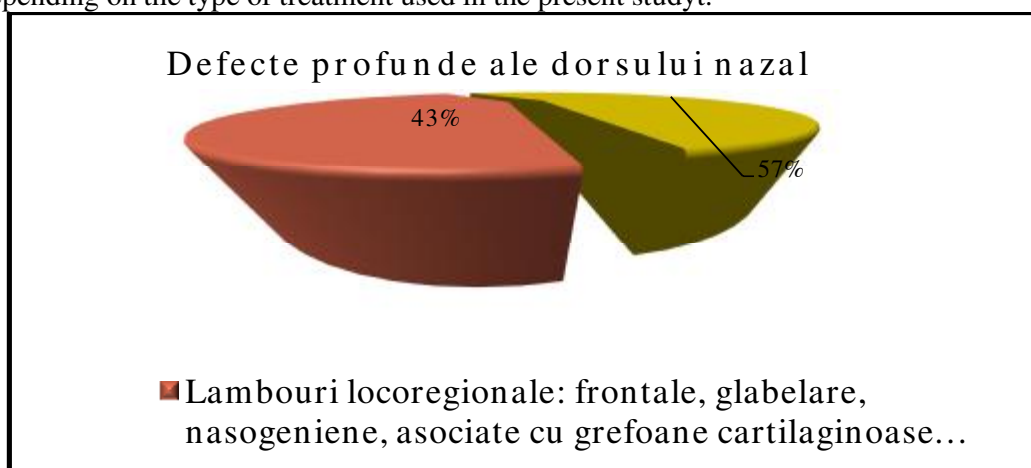
Graphical representation of the total number of patients with defects of the nasal wing depending on the type of treatment used in the present study.



Graphical representation of the number of patients with defects in the dorsal nasal tissue without deep lesions depending on the type of treatment used in the present study.



Graphical representation of the number of patients with deep dorsal nasal defects depending on the type of treatment used in the present study.



Partial defects is a major social problem given that the central location of the face nose is an essential element in defining physiognomy.

The study found that surgical practice (medical - in general) is good to pay attention to simpler procedures.

DISCUIONS

Many modern possibilities of reconstruction of partial defects of its entire nose has a number of advantages. On the one hand, allows proper removal of oncological point of view of the primary tumor in the nose without fault postexcizional extent be influenced by a certain pattern of reconstruction that leads to progress in achieving major cancer surgery with curative intent and to provide a 5-year survival rates as high a rate [17].

Topographic face is divided in clinically and surgically (surgical anatomy) at three levels:

- Superior anatomical part of the territory calvaria;
- Middle, between line and line subnazală interspâncenoasă;
- Lower range subnazală line and chin.

Middle floor has a face turn following regions: orbital (2), nasal, zygomatic (2), and recovery of partially destroyed anatomical structures at this level involves complex surgical techniques in many cases standardized [18].

Theoretically partial reconstruction of soft tissue defects of the nose has mainly three objectives:

morphological objectives
aesthetic objectives;
functional objectives.

In terms of etiologic group of patients in our study belonged to the following categories in order of frequency etiologic:

- ▶ *cutaneus tumors*
- ▶ *trauma nose open*
- ▶ *wounds bitten*
- ▶ *rare etiologies defects*

PERSONAL CONTRIBUTIONS

Although wound repair nose is one of the oldest forms of expression of reconstructive surgery, the complexity and diversity that addresses nose reconstructive procedures bulk to make it hard for surgeons today addressing this pathology [82.83].

It is very important to establish clear criteria and logic – **a real algorithm:**

1. for damage nose without cartilage damage:

- ☐ free full thickness skin autotransplant harvested especially from retroauricular region;
- ☐ -directed spontaneous epithelization;
- ☐ reapply amputated fragment (where possible) especially for children;

2. lesions nose with cartilage involvement:

- ☐ reattaching amputated segment (when it could be recovered);
- ☐ use of composite grafts (autotransplanturi free) cutaneocartilaginoase harvested from the auricular helix;
- ☐ local flaps rotate, translate or advanced (nasogenian trench, frontal zygomatic);

3. loss of substance in the nasal lobe without cartilage involvement:

- ☐ free full thickness skin transplants;
- ☐ Regional Labour (nasogeniene or FORINTI);
- ☐ free transplants Composites (cutaneogrăsoase);

4. partial loss in the lobe involvement nasal cartilage:

- ☐ free composite tissue grafts;
- ☐ regional flaps;

5. the columella tissue defects:

- ☐ regional skin flaps placement of cartilage grafts to maintain the length (height columella);
- ☐ columella lengthening and associating scar cartilage grafts as guardian (autotransplantation);
- 6. tissue defects in the nasal wings without cartilage involvement:**
 - ☐ free full thickness skin transplantation;
 - ☐ directed spontaneous epithelization;
 - ☐ local flaps biloba (relative indication);
- 7. defects in the wings or the cartilaginous nasal mucosal involvement:**
 - ☐ reapply detached segment (amputated) for trauma (it is recoverable);
 - ☐ using composite tissue grafts (ear);
 - ☐ Local Lamb (relative indication);
- 8. total nasal defects wing:**
 - ☐ lambrui front (two-stroke operators);
 - ☐ Laboratory nasogenian reinforced folding and cartilage graft;
- 9. the dorsal nasal tissue defects without deep lesions:**
 - ☐ Local Labour: cross, translate, advanced slippery;
 - ☐ free full thickness skin transplantation;
 - ☐ cutaneocartilaginoase free grafts;
 - ☐ paramedial front flap;
 - ☐ glabellar flaps rotate;
 - ☐ nasogeniene flaps;
 - ☐ retroauricular island flap on the superficial temporal artery;
- 10. deep dorsal nasal defects:**
 - ☐ locoregional flaps: frontal, glabellar, nasogeniene associated with cartilage grafts and / or bone;
 - ☐ free composite flaps including cartilage and / or bone.

CLINICAL CASES

CASE I

GV patient, male, aged 34, presents Reconstructive Microsurgery Department of Plastic Surgery and Burns with a partial defect of nose nasal located in the right wing.

History: The patient reported that four months ago he suffered an accident that resulted from a defect located in the right nasal wing.



Foto 1– Look at clinical presentation (with photo)



Foto 2 – ook at clinical presentation (profile photo)

Clinical examination revealed a lack of tissue from the superficial tissue cutaneogrăsos plan, following the partial lack of alar cartilage right, because the defect extends to the deepest plane of the wing of the nose and nasal specific plan.

Posttraumatic defect of the nasal pyramid located in the wing had a straight nose almost round surface about 1 cm².

Foto 3 – Look at clinical presentation (macro photo)



Treatment consisted of the use of free tissue transplantation composite collected from the right ear.

*Foto 4 – Looks to 2 days
postoperatively*



*Foto 5 – Looks to 2 days
postoperatively*



Progress was more than satisfactory result is a good one both physiologically and aesthetically social reinsertion successfully realizing.

CASE II

It is a patient of 69 years sex masculin saying that about 10-12 years observed aberrant development of skin from nose to tip of the predominance that while organic distressing in that "tumors" that produce obstruction develops nostrils which causes him to demand that solving condition. (photo - 11, 12, 13 - preoperative Skin).



*Foto 6 – Preoperative
Skin - respects the
shaft inferosuperior*



*Foto 7 – Preoperative Skin -
look in profile*



*Foto 8 – Preoperative appearance
- on the frontal plane*

Note that in addition to patient age and underlying conditions requiring caution in relation to surgery ie type II diabetes (24 years old) with blood glucose between 160-340 mg / dl, hypertension stage II arterială in cardiology treatment with maximum tension values between 160-200 mm Hg; Ischemic Burden heart disease (stable angina of effort) and obesity gr. III. After a period of "medical moniotorizare" multidisciplinary surgical intervention is under general anesthesia with oro-tracheal intubation (ASA score III) and electric scalpel excision shall plan precartilaginos tumors eradicated piece is sent for histopathological examination (photo - 14, 15 - Skin surgery).



Foto 9 – Skin surgery



*Foto 10 – Skin
surgery*

Postoperatively the excised leave payments with the intention of a possible secondary coatings free autotransplantation. The first dressing is performed at 48 hours and thereafter every 24 or 48 hours using local topical antiseptic and stimulating epithelization (pancolitis, Biotitus dermis) and histopathological results show: epithelial hyperplasia, sebaceous hyperplasia, epidermoid cysts and abundant chorion (Photo - 16 - Part excised).



Foto 16 – excised piece

The postoperative evolution is achieved smoothly and - surprisingly - directed spontaneous epithelization of the area in 16 days with a good cosmetic result (photo - 17, 18 - Skin to 16 days postoperatively).



Foto 17, 18 – Postoperative appearance at 16 days

CONCLUSIONS

- & The central and prominent position in the face nasal pyramid is the key element in defining facial physiognomy but also the segment most exposed;
- & There is certainly a strong correlation between anatomy and methods covering nose and partial defect tissue reconstruction in this region;
- & An essential principle of reconstructive surgery is choosing a simple but effective ways - where it is necessary, however, a complex process which is indicated mainly in extensive destruction of the nose;
- & crucial element influencing the choice of reconstructive method in partial defects of the nose is the fault location based on anatomical regions of the nasal pyramid;
- & choice of reconstructive procedure or partial coverage of tissue defects of the nose is dictated by: local vascular status, patient age, presence or absence of local infection, the presence or absence of lesions deep social and educational status of the patient;
- & The partial reconstruction of nose defects aesthetic element is most often essential unlike the extensive damage reconstruction should aim primarily functional aspect;
- & The selection process is essential reconstructive accurate assessment of surface and depth of the defect - defect volume - (descriptive parameters of defect);
- & Selecting the reconstruction plastic surgeon or otolaryngologist is based on experience and skill to work after taking into account all local factors and the general lesion on each patient individually;
- & skin tumor pathology represents a significant proportion (over 70%) of "achievement" of soft tissue defects and defects require postexcizionale usually simple reconstructive procedures;
- & In patients with multiple carcinoma the face (epiteliomatoză face) or precancerous lesions should be avoided to use local or regional flap plasty that could bring new or reconstructed area covered injuries;
- & Partial defects posttraumatic nose is a percentage of about 15% of all cases included in the study and partial nose defects caused by plagues bitten around 10%, and partial nose defects resulting from rare etiologies account for less than 1 % as a percentage.
- & nasogeniene local flaps can be used with aesthetic and functional and aesthetic results very good partial nose defects - except columella and is a relatively simple reconstructive procedure, in the event of failure to present any aesthetic sacrifices donor area;
- & algorithm evaluation and choice of reconstructive procedure is useful to avoid random decisions and made an "agreement" between solutions and complex defect reconstruction;
- & The facial trauma reconstruction nasal pyramid defects was delayed at a rate of 58% of the cases either because it is required to stabilize vital functions in the first stage excisions were performed by addition;
- & The partial reconstruction of nose defects donor areas should be weighed - at least clinically - before starting reconstructive surgery;
- & reconstruction results were assessed in terms of coverage and quality stable defect in aesthetic and functional point of view, especially on socio-professional integration of patients;
- & nose enjoy the full range of surgical reconstructive techniques but partial defects complexity reconstruction virtually never reaches such microsurgical free transfer and

explaining that it returns both the responsibility and the plastic surgeon Otorhinolaryngology;

& The main objective of personal research was the detailed analysis of case law and based on the analysis we performed a therapeutic algorithm that appreciate it as useful.

Bibliografie selectivă

1. **Popian Șt.** – chirurgia estetică și reparatoare a feței, Ed. Medicală, București, 1956, 140-145.
2. **Mathes S.J.** – Plastic Surgery 2nd Ed, Philadelphia Sounders, 2006, vol. I, General Principles, 508-533.
3. **Albu I.:** Anatomia omului. Papilian. Voi 2, Ediția VIII. Ed. ALL. București, 1998: 19-25.
4. **Aoki K., Osumi-Yamashita N., Ninomiya Y., Eto K.:** Differential expression of N-CAM, vimentin and MAP IB during initial path-finding of olfactory receptor neurons in the mouse embryo. Anat. Embryol. Berl., 1995 Sep; 192(3): 21 1-20.
5. **Enescu D.M., Bordeianu I.** – Manual de chirurgie plastică, Ed. Ovidius University Press, Constanța, 2001.
6. **Albu I., Georgia R.:** Anatomie topografică. Ediția a II-a, Ed. ALL, București. 1998; 1-10.
7. **Chiotan N.** (sub redacție) – Probleme actuale ale infecțiilor chirurgicale, Ed. Național, București, 2000, 5-67.
8. **Bilgin H., Kasemsuwan L, Schachern P.A., Paparella M.M. Le C.T.:** Temporal bone study of Down's syndrome. Arch. Otolaryngol. Head. Neck. Surg.. 1996 Mer; 122(3): 271-5.
9. **Chepenik K.P., Shipman-Appasamy P., Ahn N., Goldowitz D.:** Developmental regulation of various annexins in the embryonic palate of the mouse: dexamethasone affects expression of annexin-I. J. Craniofac. Genet. Dev. Biol.. 1995 Oct-Dec; 15(4): 171-81.
10. **Grigorescu-Sido Fr. :** Embriologie generală și specială, Ed. Casa cărții de știință Cluj-Napoca, 2006.
11. **Cheney M.L.** – Facial Surgery Plastic and Reconstructive, Baltimore, Willams & Wilkins Company, 1997, 147-157.
12. **Bordeianu I., Iordache I.V., Caraban B.M.** – Chirurgie plastică și microchirurgie reconstructivă, Ed. Muntenia, Constanța, 2010.
13. **Giuglea Carmen** – Transferul liber microchirurgical ca modalitate de reconstrucție anatomică și funcțională a unor defecte post excizionale la nivelul capului și feței; teză de doctorat, U.M.F. Carol Davila, București, 2007.
14. **Mc Carthy** – Plastic Surgery – General Principles (vol.1), Sounders, London, 1990.
15. **Grigorescu-Sido Fr.:** Anatomia omului. Generalități. Casa Cărții de știință, Cluj-Napoca. 1999; 20-25.
16. **Kasemsuwan L, Schachern P., Paparella M. M., Le C.T.:** Residual mesenchyme in temporal bones of children. Laryngoscope, 1996 Aug; 106(8): 1040-3.
17. **Manson P.N.;** Facial bone healing and bone grafts: A review of clinical physiology. Clin. Plast. Surg., 21:331-348, 1994.
18. **Cordoro L.R., Russel L.** - Free flaps. Plast. Reconstr. Surg, 90:87, 2005.
19. **Ang H.L., Deltour L, Hayamizu T.F., Fgombic Knight M., Duester C:** Retinoic acid synthesis in mouse embryos during gastrulation and craniofacial development linked to class IV alcohol dehydrogenase gene expression. J. Biol. Chem., 1996 Apr; 271(16): 9526-34.
20. **Hehn B.M., Young A.V., Shah R.M.:** Analysis of cell proliferation kinetics during the secondary palate development in quail. Histol. Histopathol., 1995 Jul; 10(3): 697-702.
21. **Kaestner K.H., Bleckmann S.C., Monaghan A.P., Schlondorff J., Mincheva A., Lichter P., Schutz G.:** Clustered arrangement of winged helix genes fkh-6 and MFH-1 :possible implications for mesoderm development. Development, 1996 Jun; 122(6): 1751-8.
22. **Larsen W.J.:** Human Embryology. Second Edition, Churchill Livingstone New York, Edinburgh, London, Melbourne, Tokio, 1997: 347-374. tion, Churchill Livingstone New York, Edinburgh. London, Melbourne, Tokio, 1997; 347-374.
23. **Piza J.E., Northrop CC, Eavey R.D.:** Neonatal mesenchyme temporal bone study: typical receding pattern versus increase in Potter's sequence. Laryngoscope, 1996 Jul; 106(7): 856-64.
24. **Rucci L, Gammarota L, Borghi-Cirri M.B.:** Carcinoma of the anterior commissure of the larynx: I. Embryological and anatomic considerations. Ann. Otol. Rhinol. Laryngol., 1996 Apr; 105(4): 303-8.

25. **Sadler W.T.:** Medizinische Embryologie. Georg Thieme Verlag Stuttgart - New York. 1998: 322-376.
26. **Schmidt Ana-Nadia, Vasii Renata, Gui Dorina:** Morfologia cavității orale (a pereților) la sfârșitul primului trimestru de sarcină. Revista Națională de Stomatologie, 2000; 3(3-4): 83-87.
27. **Schorle H., Meter P., Buchert M., Jaenisch R., Mitchell P.J.:** Transcription factor AP-2 essential for cranial closure and craniofacial development. Nature. 1996 May; 381(6579): 235-8.
28. **Shinohara T., Honjo T.:** Epidermal growth factor can replace thymic mesenchyme in induction of embryonic thymus morphogenesis in vitro. Eu. J. Immunol., 1996 Apr; 26(4): 747-52.
29. **Wang K.Y., Juriloff D.M., Diewert V.M.:** Deficient and delayed primary palatal fusion and mesenchymal bridge formation in cleft lip-labile strains of mice. J. Craniofac. Genet. Dev. Biol.. 1995 Jul-Sep; 15(3): 99-116.
30. **Bunkis J., Mulliken JB, Upton J, Murray JE -** The evolution of techniques for reconstruction of full-thickness defects. Plast Reconstr Surg 1982;70:319.
31. **Gonzales-Ulloa M -** Reconstruction of the face covering by means of selective skin in regional aesthetic units. Br J Plast Surg 1986;9:212.
32. **McGregor IA -** Fundamental Techniques of Plastic Surgery, 6th ed. New York, Churchill Livingstone, 1976.
33. **Breidenbach WC, Trager S. -** The use of quantitative cultures in determining successful free flap closure of complex wounds. Abstracts of the Fourth Annual Meeting of the American Society for Reconstructive Microsurgery, Baltimore, 1988, p.78.
34. **Franklyn Elliot L. And the Members of the Oneiro Travel Club:** Flaps: Decision Making in Clinical Practice, Springer-Verlag, New-York, 1997.
35. **Niculae I.:** Studiul anatomo-clinic al chisturilor de origine branhială, Teză de doctorat, U.M.F. Gr. T. Popa Iași, 1997.
36. **Hardin CK.:** Banked bone. Otolaryngol. Clin. North Am. 27:911;1994.
37. **Takahishi I., Mizoguchi I., Nakamura M., Sasano Y., Saitoh S., Kagayama M., Mitani H.:** Effects of expansive force on the differentiation of midpalatal suture cartilage in rats. Bone. 1996 Apr; 18(4): 341-8.
38. **Isac F. et al.** Lambourile pediculate. Editura Mirtin, Timișoara, 1995.
39. **Argenta LC, Watanabe MJ, Grabb WC -** The use of tissue expansion in head and neck reconstruction. Ann Plast Surg 1983; 11:31.
40. **Ha S.M., Back T. -** Temporary arterio-venous shunting in microvascular free tissue transfer. J. West Pac. Orthop. Assoc. 26:1, 1999.
41. **Burt JD, Burns AJ, Muzaffar AR, Byrd HS, Hobar PC, Beran SJ, Adan Kenkel J. -** Total soft-tissue reconstruction of the middle and lower face with multiple simultaneous free flaps in a pediatric patient. Plast Reconstr Surg 105:2440-2452.
42. **Mathes SJ, Nahai F. -** Reconstructive Surgery: Principles, Anatomy and Technique, New York, QMP/Churchill Livingstone, 1997.
43. **Cherry G.W., Austad ED., Pasky K., et al -** Increased survival and vascularity of random pattern skin flaps elevated in controlled expanded skin. Plast Reconstr Surg 1983;72:680.
44. **Mathes SJ, Nahai F. -** Clinical Atlas of Muscle and Musculocutaneous Flaps. St Louis, C.V. Mosby Co, 1979.
45. **McCraw J., Dibbell D., Carraway J. -** Clinical definition of independent myocutaneous vascular territories. Plast Reconstr Surg. 1977;60.
46. **Chang N, Mathes SJ. -** Comparison of the effect of bacterial inoculation in musculocutaneous and random-pattern flaps. Plast Reconstr Surg 70:1- 10, 1982.
47. **Cheney M.L. -** Facial surgery plastic and reconstructive., 169-173, 256-262.
48. **Coleman J.J. III, Jurkiewicz M.J., Nahai F., Mathes S.J. -** The platysma musculocutaneous flap. Plast Reconstr Surg 1983;72:315.
49. **Mathes SJ, Nahai F. -** Clinical Applications for Muscle and Musculocutaneous Flaps. St. Louis. The C.V. Mosby Co, 1982.
50. **Dubner S., Heller K.S. -** Reinnervated radial forearm free flaps in head and neck reconstruction. J. Reconstr Microsurg 1992;8:467, discussion 469.
51. **Mathes SJ, Nahai F. -** Classification of the vascular anatomy of muscles experimental and clinical correlation. Plast Reconstr Surg. 67:177, 1981.

- 52. Dos Santos LF.** - The vascular anatomy and dissection of the free scapular flap. *Plast Reconstr Surg* 73:59,1984.
- 53. Cormack GC, Lamberty BGH.** - A clasification of fasciocutaneous flaps according.
- 54. Cormack & Lamberty.** - The Arterial Anatomy of the Skin Flaps. Edinburgh Churchill Livingstone, 1986.
- 55. Faltaous AA, Yetman RJ** - The submental artery flap: an anatomic study. *Plast Reconstr Surg* 1996;97:56.
- 56. Antohi N., Stîngu C., Stan V.** - Reconstrucția microchirurgicală a membrului pelvin. Ed. România Liberă, 2002,91:95.
- 57. Foucher G., Van Genechten F., Merle N., Michon J.** - A compound radial artery forearm flap in hand surgery: an original modification of the Chinese forearm flap. *Br J Plast Surg* 37: 139, 1984.
- 58. Coleman J.J. III, Nahai F., Mathes S.J.** - Platysma musculocutaneous flap: clinical and anatomic considerations in head and neck reconstruction. *Am J Surg* 1982;144:477.
- 59. Hurwitz D.J., Rabson J.A., Futrell J.W.** - The anatomic basis for the platysma skin flap. *Plast Reconstr Surg* 1983; 72: 302.
- 60. Kroll S.S., Goepfert J., Jones M., et al** - Analysis of complications in 168 pectoralis major myocutaneous flaps used for head and neck reconstruction. *Ann Plast Surg* 1990;25:93.
- 61. Futrell J.W., Jons M.E., Edgerton M.T., et al** - Platysma myocutaneous flap for intraoral reconstruction. *Am J Surg* 1978; 136:504.
- 62. Zimman O.A.** - Reconstruction of the neck with two rotationadvancement platysma myocutaneous flaps. *Plast Reconstr Surg* 1999;103:1712.
- 63. Bainton B., Upton J., Acland R., Shaw W.W., Finseth F.J., Rogers C., Pearl R., Hentz V.R.** - Experience with the temporoparietal fascial free flap. *Plast Reconstr Surg.*,2004,177-188.
- 64. Demergasso F., Piazza M.V.** - Trapezius myocutaneous flap in the reconstructive surgery for head and neck cancer. *Am J Surg* 1979; 138:533.
- 65. Netterville J., Woo D.** - The lower trapezius flap; vascular anatomy and surgical technique. *Arch Otolaryngol Head Neck Surg* 1991 ;117:73.
- 66. Brent B, Upton J, Acland RD, Shaw WW, Finseth FJ, Rogers C, Pearl RM, Hentz VR** - Experience with the temporoparietal fascial free flap. *Plast Reconstr Surg* 76:177, 1985.
- 67. Shestak K.C., Myers E.N., Ramasastry S.S., et al** - Microvascular free tissue transfer for reconstruction of head and neck cancer.
- 68. Jones N.F., Lister G.D.,** - Free Skin and Composite Flaps in Green's Operative Hand Surgery, 35, Fourth Edition, 1999.
- 69. Boorman J.G., Green M.F.** - A split Chinese forearm flap for simultaneou lining and skin cover. *Br J Plast Surg* 1986; 39:179-182.