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Rectangular triple Slider Island Flap

On defect of removed skin cancer
From the side of the cervical

Announcement at the 2nd Greek
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Introduction

It is a modification of the original and first teaching Flap by Celsus (25 B.C. – 50 A.D.), which in continuation of its work, restored and applied by Franco in 1556[1].

The Triangles symmetrically at the base of the flap are designed in order to avoid formation of excess sides of the flap base, the known "Dog Ears" which later modified by Burow in 1855 (known as triangles Burow[2]). These Derm Access Triangles are removed and discarded.

Celsus has introduced the suture of vascular ligation and stiches for local flaps[3], the advancement flap and the island of flap for nasal defects for lips, nose and ear[4].

Celsus, in his first edition in 1478, in Florence (8 volumes, ninth chapter of 5th volume) was referring to the flaps for the lip, nose and ears. (Discovery of typography in 1436 and first Book printed was the Bible in 1452).

In later years, it was named "French" flap. It was a quadrilateral parallelogram with ratios of bases 1:2 to 1:4 even 1:5, according to the original design of Celsus' flap. While it had been followed by the undermining suturing both elongated sides on the side areas of the wound as on the shortest side, with the opposite short side of the second symmetrical flap (Supply promotional flap).

The advancement is one of the two main types of the transposition flaps (with the rotation flap). Its widthe and size in general depends mainly on the vascularity of the area's skin.

Undermining the surrounding skin is atechnique which was applied by Franco. In 1556 in the book "Petit Trait Contenantune Des Principales De Chirurgie", Franco (1505-1578) wasconsidered one of the greatest doctors of the Renaissance. In the history of medicine it is stated that: There is no surgeon with greater discoveries than Franco."

Franco, as a protestant, emigrated from France to Lausanne taking essentially surgery from the hands of the Parissianes "Barber Surgeons".

During the initial design of Celsus, toxoid incisions (section of the peripherar cycle)were made at the base of the flap. These incisions, after the attraction, were converted into crescent (semilurar incisions), in order to reduce the suture tension between the opposite bases of the double flap, the so-called relaxation lines (relief excisions). Those are described at the work of Celsus" De Medicina", Venice edition 1493. Secondary defect was healing by the second intention.

Modification of this flap has been made by Jones at 1847 (Ophthalmologist from Philadelphia) in the form of Y to V. In another article, Jones and Dixon, had been referring to the invention of the Ophthalmoscope device, by the greek

young doctor Anagnostakis which was also used by Von Graefe in Berlin. Also, they had be referring to the correction of entropion and entropion and to the treatment of dermal cancer using zinc chloride, material which in 1936 was used by dr. Mohs for the foundation of the homonymous method, such as the completely eradication of cancer of skin (Mohs surgery). These ophthalmologists had dealt with Gonococcal Ophthalmia, another skin disease at that period.

Next to above was the island flap, published by the dutchEsser (from Rotterdam) in 1917, which is transposition flap by random vascularity (not based on an official vessel, so it is called axial).
Blood supply is performed by the subcutaneous tissue, in particular by the perforating skin arterioles. Initially, the subcutaneous stem is prepared, with a subcutaneous skin underneath the dermis to the level of deep fascia, but its thickness is enough for the vascularity of flap.

Then as the flap is pulled (slid) to the skin defect to be covered, where it is sutured. The donor area is covered with straight suture, as it is undermined before peripherically. Distances must be small and capable for the survival of the flap.

Ten years earlier, Horner (Philadelphia) had described the Z closure with later development in multi Z closure. The flap Y in V by Jones, is triangular flap (the upper part of the Y), after the intersection of the Actuator Part, for the removal of skin damage, usually cancer. In the formed defect, the triangular flap is advanced (pulled), but without additional incisions to its base, so the top of the triangular section of Y, comes to the opposite of the vertical intersection, and a triangle is formed, named V.

Seventy years after Jones in 1920, Gillieshad introduced the contrast conversion of Y to V, namely flap V in Y. It is triangular advancement and after the incision the lines of the V, pulled upwards to the base as far as possible approximately 1 cm, so that there is enough subcutaneous pedicle for blood supply.

The angle of V, the original, with the new sutured in strength fashion and the remaining flap on the sides also similar flap with the name "keystone", was designed by Beham[7A] in2003.

Triple rectangular slider island flap

The rectangular triple sliding flap is a modification and extension of the above. It is noted that it does not have until March 2019 published in the international medical literature. Flap skin is cut (detached) in all periphery line, so dermal base does not exist.

Blood supply is performed by the subcutaneous tissue, in particular by the perforator skin arteries.Initially, the subcutaneous stem is prepared, with an subcutaneous undermine beneath the dermis, up to the level of deep Fascia, but enough thickness for the vascularity of the flap. The flap is drawn (slid), to the skin defect to be covered, where it is sutured. The donor area is closed with straight suture, after undermine. Perimetrically, the stem should not accept during traction (and in particular during suturing), maximum tension which means strangulation of the skin vessels.

It is preferred the flap to be accompanied by an official vessel, to ensure its survival hundred per cent.

The flap recieves blood from vessels of subcutaneous tissue, especially from its center. A type of mushroom is formed, with Vascularity of the stem of the flap to the surface, which together with the subcutaneous stem is moved (pedicle).

It is essentially an advancement flap, and nota rotation one, because then, there would be strangulation of stem vessels. Also, it could be blood supply and venous stasis problem, (main cause of loss/necrosis of flap). There is a slight undertouch (undermine) of the flap peripherically and in the surrounding skin extended, as long as it allows its flexibility which has no problem of Vascularisation.

It is preferred to avoid non elastic areas and to prefer overlying muscles. The flap advanced covers the skin defect and is sutured all over at the points of intersection/detachment from the surrounding skin.

Under the condition of sufficient mild traction to maintain the vascularitation and not excessive to be the skin white (test Allen)[9], it is necessary to wait two hours (Golden two hours) to obtain a pink color and not white or cyan (blue).

In the case of 2 flaps, they are sutured according to the model of Celsus. He has formulated the conditions for the approximation of defects: 1) Removal of foreign bodies (clearly also of cutaneous cancer), 2) meticulous hemostasis (particularly used in the simple symmetrical dermal Resection in Eyelids as in xanthelasma of excess skin with a visual field problem, 3) good suturing.

In the case of 3 flaps, they are sutured in the triple flap pattern of Limberg, or the police star like fashion as on a triangular defect. It a must to start suture from the corners of the triangle and of course placing multiple subcutaneous sutures.

The triple rectangular slider island flap in 2019 is an alternative way of convering skin cancer defects and it's safe.

Around the triangular defect in the side area of the cervix, shape of rectangular triangle, formed 3 squares with the square of the hepotenouse oriented toward the jaw, while the vertical sides towards the clavicle and sternum (Pict. 1).

picture 1

Skin cancer removed in right angle triangle fashion , and 3 square flaps designed

On the basis of the above and the vascularity of the skin, was designed on a triangular defect, after removal of extensive squamous cell carcinoma in side of the cervical area of patient, triple slider rectangular flap, according to the model of proof of the Pythagorean theorem (or theorem of hecatomb).

It follows by filtration of the flaps with Xylocaine-Adrenaline 1% (diluted), as the patient (91 years old) was receiving anticoagulants. It was preferred by the no-adrenaline anesthesia, because there was a risk of bleeding and hematoma, endangering the survival of 3 flaps. Risk due to extended size of there square flaps 3 to 5 cm of each side of them.

In accordance Gillis, the survival of the flaps is a battle of blood circulation.

Then, all around of the incision in dermal surfaces of the two squares of vertical sides (Pict. 2) undermine the flap half centimeter in all periphery for mobility purposes and total undermining of the skin all around of the Formed (6+3 angles) polygon with 9 sides.

It is a mixed rotation in part and mainly advancement flap. They revolve very little, pulled mainly, and sutured the two Square Flaps with adsorbable sutures (3-0). At once attached to the underlying tissue, and also between them, the two flaps of vertical sides (Pict. 3).

Εικών 2.
πανταχόμεν τομή κρημνών των δύο καθέτων πλευρών

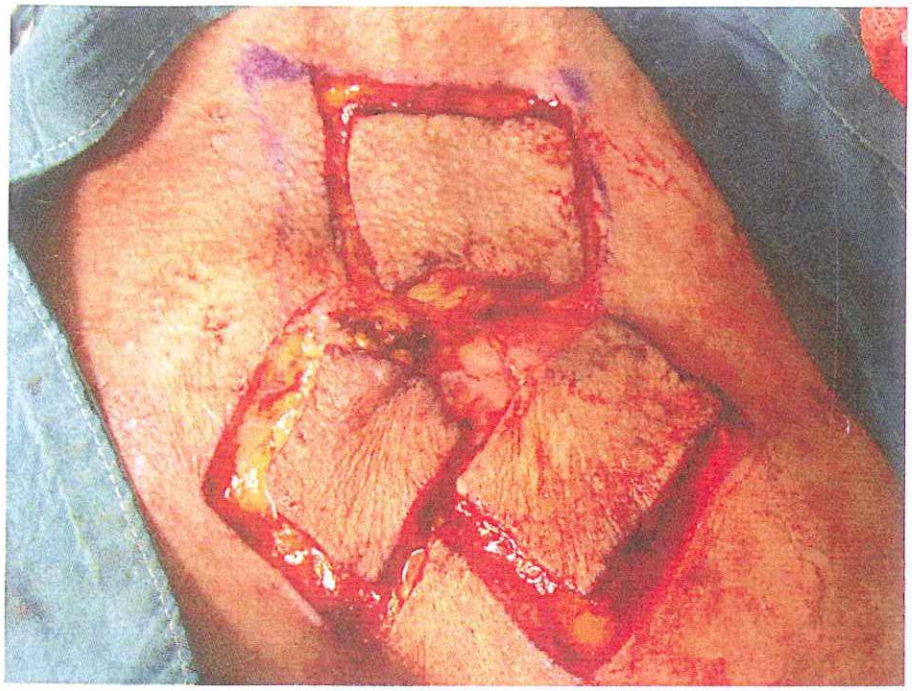
Pic. 2
Insicion of 2 flaps, on vertical triangle sides

Εικών 3
συρραφή κρημνών των δύο καθέτων πλευρών με εσωτερικά ράμματα

Pic. 3
Suturing of 2 flaps with absorbable sutures

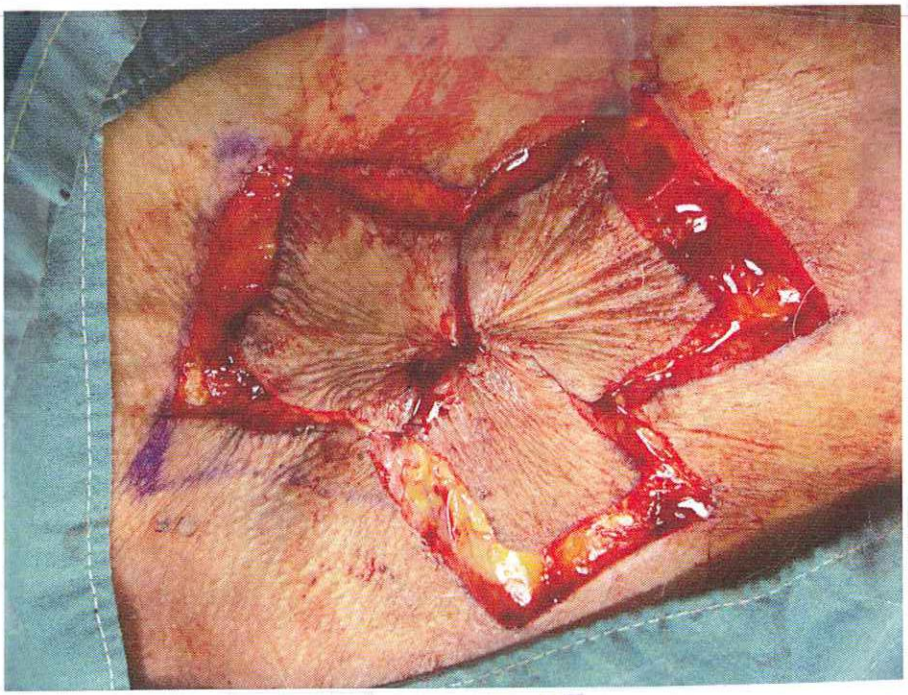
Following is the mobilization of the hypotenuse flap, fixation to the underlying layers and come on touch to the previous flaps (Pict. 4).

The three flaps are sutured together, in place of the original rectangular triangular defect with absorbable sutures, creating peripherically of all, secondary rectangular defects. With almost equal square area but keeping in mind that basic property of skin is the flexibility, so there is a possibility to come together and close the sides of defect (Pict. 5).



Εικών 4
κινητοποίηση
κρημνού
υποτείνουσας
(άνω)

Pic. 4
Moving the triangle
hypotenouse flap



Three square island flaps sutured between them and undersurface, with absorbable sutures

Galen 12,13 (130-200 A.D.) had suggested the cutting of crushed boundaries of wounds (straight incision) and suture of wound in levels, with placement of internal sutures and appropriate orientation of the insect line (obviously dermal tension lines) discovered by Dupuytren (13A) 1831 and later by Langer (13B) 1862.

Follows the suture of flaps with absorbable stiches in the sides of the 9th polygonal intersection followed and the color of the flaps is checked (Pict. 6). Careful hemostasis is performed all around the periphery and cleaning the field with transparent antiseptic (Pict. 7).

Εικών 6
συρραφή τριών κρημνών στην πολυγωνική τομή

Pic. 6
Suture of 3 flaps in polygonal final defect

Εικών 7
περιφερική αιμόσταση και καθαρισμός πεδίου

Pic. 7
Hemostasis and field cleaning

Later the surface suturing is performed with Nylon 3-0 in all sections (Pict. 8).

The flap was made over the platysma area of 90 year old patient under anticoagulant therapy. For skin cancer removal, the adrenaline dilution pathway was followed to 1% instead of 2%.

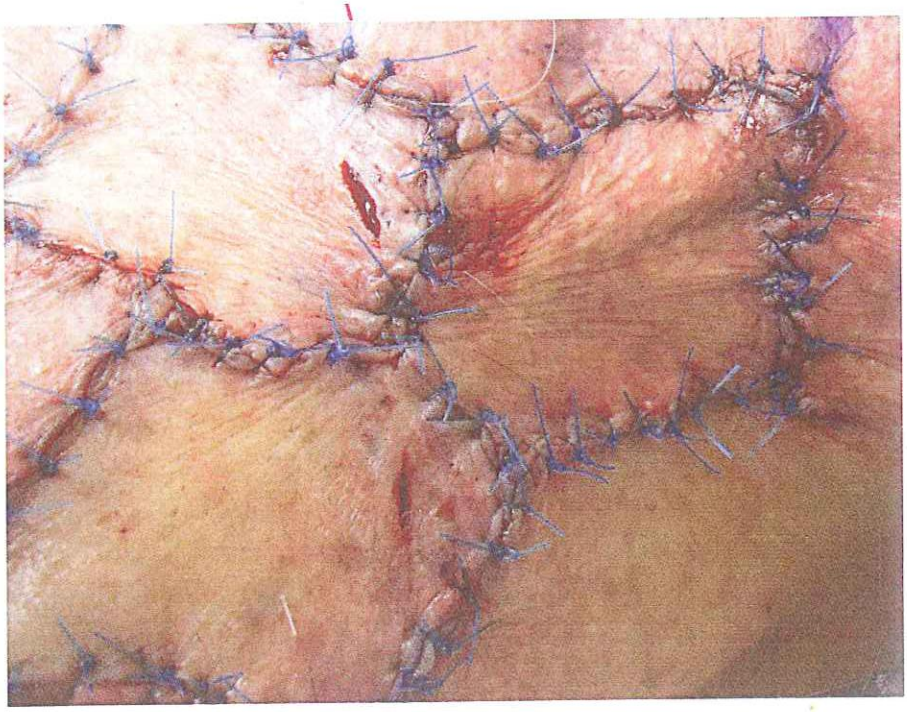
After placement of antiseptic fluid and antibiotic gauge, have appeared cyan (blue) color in the suture area of 2 square flaps of vertical sides because of difficulty in the drainage probably.

Possible venous stasis and risk of loss the flaps. Ambrosios Pare[14] (1547) said: "The wound was closed and God will heal it.". Pare in 1564 had published his work "Dix Livres De Chirurgie", with reissue after nine years.

One incisions in each flap was done, with slight undercut and pressure for exit of blood. It can also be done partial suction with liposuction type syringe (for fat transfer). In less than two hours the cyanosis did not exist. In other cases, sutures are usually removed for blood outflow (Pict. 9).

Εικών 8
Τελική συρραφή

Pic. 8
Final suturing



Εικών 9
τομές σε δύο κρημνούς
για απορροή αίματος

Pic. 9
Incisions in
two flaps
for blood exit

After 24 hours, the 3 flaps had a vivid red color and minimal bleeding (Pict. 10).

Εικών 10
Οι 3 κρημνοί
μετά 24ωρο

picture 10
The 3 flaps
after 24 h

Haemosis of flap for muscular molding:

Branches of the arteries. From the external carotid in order of upward spring up:

a) upper thyroid and occipital, b) linguistic and posterior Auricular, (c) facial, d) internal Maxillary, e) Superficial Temporal.

Blood supply of Upper part from of The submendal, branch of facial.

Blood supply of lower segment by branch of transversal.

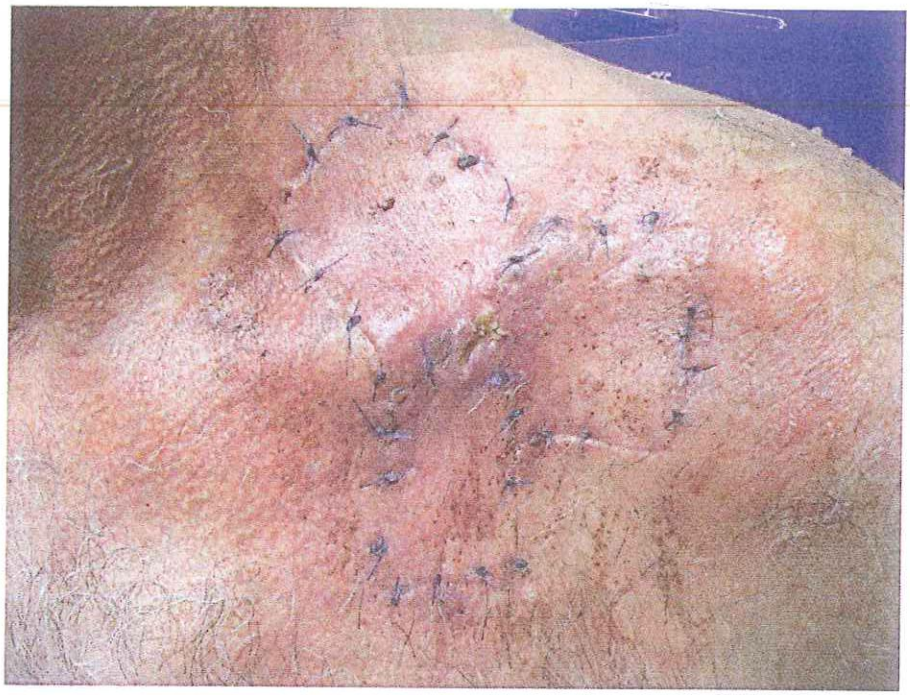
Intermediate Became The test Allen, For the control of blood supply. TDr. Allen[9] in the Article 1929 Reports: «Doctor Presses the Skin, And wait for the return of the pink color ". The test Allen Published after five-year monitoring of 300 patients, With Thrombotic Vasculitis in Mayo Clinic. The disease was first described 50 years earlier than the Von Winiwarter (Pict. 11).

Εικών 11
Δοκιμασία Allen

Pic. 11
Allen test to
the flaps

Dr. Allen At the age of 29 years, invented the Simple test that remains classic, For control of blood supply. Cardiologist, Who exceeded 300 papers recieved. The prize «Exceptional scientific activities» After 30 years (1958). The flap was periodically checked And Partial suture Removal (Pict. 12). After the complete removal of sutures were minor inflammation in the center, and treated with topical antisepsis and antiviosis (Pict. 13).

Εικών 12
μερική αφαίρεση
ραμμάτων



Pic. 12
Partial suture
removal
in 2 weeks

picture 13
Final result after total suture removal, 3 weeks later

Veins below the platysma: personal, internal Jugular.

Arteries: Internal carotis, facial, Occipital, upper Thyeroid, Common carotis.

The platysma muscle recieves blood From a main stem, the facial artery (continuation of the medial maxillary). And In addition from the largest branch of the (Submental). Also from secondary branches, of the transverse cervical,

occipital, posterior ...auricular, and upper thyroid, Which is also the first branch of carotid.

Microcirculation

After Paré (1564) and Franco (1556), And Before Y in V Flap of **Ophthalmologist** Jones (1847), and Burow (1855), Hunter[15] in 1794 with the " Treatise On The Blood, Inflammation and gunshot (Edinburgh), also Quain And Wilson[16] in 1842 with the "SEries Of Anatomical Plates In Lithography" (Two-volume version In London). Dealt with the Subcutaneous skinc Vessels and their anastomoses.

Hunter Studying embryo and newborn, Observed a fixed number of arteries, As well as fixed perforations in Children and minors.

They also pointed out the anastomoses, observing that they were thicker where more dence were more distant.

Septal-cutaneous arteries have been described by Quain and Wilson (London 1842), Grand 1958 (Anatomy book), plus Cormak And Lamberty (1984).

One and a half Century Later Taylor and Palmer[17], from the Division of Anatomy at University of Melbourne in 1987 Describe the Vascular Territories». Angiosones, from the Greek word, As he mentions in the footnote to article), In an experimental study.

Before and after Allen's test published two (angio means vessel, soma meaus body).

Very important studies, Of Manchot[18] 1889. «Die Hautarterien (Version Leipzig) and Of Salmon[19] 1936. "Arteres De La Peau» (Paris).

Manhot (1889) has described specific central vessels before the discovery of the Ray X from Roedgen 1895.

Salmon 1936 made further imaging by injecting lead oxide and using Ray.

They followed specific articles such as:

Distribution of dermal vessels in the skin of sole and buttocks.

The skin perforators are of two kinds: 1) Straight vase (Skin Perforating), that goes through in forme between muscles septum and muscle.
2) Smaller perforators, As final branches.

The two networks communicate on the surface of the Fascia.

Skin perforators Have a different image under pressure and extension. a) Perforators in peace, b) Pressure from underlying tissues, During the Development. Always there are vessels interchanging, For the nourisment of the area which they five blood.

Flap designed alternative Rectangular Triple Slider "Pythagoric", Because: In Previous Patient with Skin cancer in Cervix, there were large rotation flaps mainly. Indispesable was the Limited Move Of Cervix. With this Triple Sliding Flap, The Cervical motion is easier, and less dangerous for the survival of the flap.

The survival of the flap ensured by skin blood supply of Muscular Platysma, over which the flap was held (Pict. 12).

The platysma, thin and wide muscle, Surrounded by cervical Fascia and stretching: From the skin below the clavicle to the mandible. Has great mobility. Extra Auxiliary bundles Extend masseter Muscle.

Blood supply from one main and many sub-branches. Main stream the facial artery Continuation of the mandibular (Sector of external Carotid). Also and the largest branch, the submendal.

Secondary branches Come from transverse Cervical, Occipital, back Auricular, upper thyroid.

From these come Many perforation Branches, muscle-skin in accordance Coleman[30], in the article «Platysma – Clinical and Anatomic Consideration, 1982 in the Am. J. Surg. Also in accordance UEhara[21] In «Blood Suplly to platysma. Anatomic Study An Clinical consideration» 2001 In J.OrAl. MaxIlofac Surg.

This flap is used as an alternative modified Method of other previous flaps. As Rieger[22] 1967 for nasal defects after removal of skin cancers. Advancement flap from the Glabella at the injection sites muscle relaxants Substances, To the top of the nose.

Also used in areas of increased probability For Keloid Development. As the sternum and the spine of young men, Alternative to eliproid defect by Von SiManowSky[23]. Owhich in spite of the placement of internal sutures, and the widespread undermind, is observed in young people creating scar, due to increased Skin tonsion and not limiting Movement.

German Manchot[18] In 1889 mapped the vascular areas of the skin, detecting 40 approximately vascular head and neck regions.
In 1936 French anatomist Salmon[19] Described 80 in the whole body, with the help of radiography. The skin vessels are treveling on loose connective tissue.

The cutaneous arterial branches start from a main artery or from muscle branches, following a course into Muscles, or between the muscles. A course is followed through the Deep Fascia, on the surface of which they branch out to the Superficial Fascia, through adipose tissue, which receives blood from them. This creates under papilla of the dermis, Vascular network (subpapillar).

In addition there is a deeper vascular network, and in these two Networks The flap is based when it has been cut off peripherically the To the level below the subcutaneous fat.

The anastomoses between neighbouring regions, blood recieving from primary branches, are too many (of 80 that the anatomist salmon studied).

In the skin of temporal area, for example, the blood comes by the Superficial Temporal artery, branch of the internal mandibular branch of the external carotid (The arteries both ate palpable).

The Vascularity of skin, is ensured by arteries from between the muscles intervals (mainly), but also complementary of perforating Branches of the Deep Fascia, as terminal branches of arteries supplying Muscles. They perforate as well as the nerves (lest of scarification).

Platysma Superficial of the cervix under the Cervical Fascia and subcutaneous fat. It acts as a mimic muscle, but performs large movements e.g. yawning. It's muscle of expression.. Below that, are carotid artery and Jugular vein.

The venous circulation of the skin is made from a network below the dermis, from venous branches that accompany the skin arteries.

The above result in the Superficial, and then in the Deep Venous network[24].

The Dr. Mohs Always Noted the importance of anatomy and blood supply of the flap.

Vascular regions of the back Studied with selective angiograply and arteritiac Injection of Prostagladin (1987), namely one sentury after Manhot (1889).

In 1981 Mathes and Nahai classified the supply of the Muscles, Clinically and experimentally in 5 major categories. Category 2, Which ranks the platysma,

has a primary stem and some smaller vascular stems (as well as the soleus, the Lean Adductor and the outside wide Muscles).

Origins (pre-history)

In search of the Greek continuation of Hippocratic medicine, is mentioned Asdlepedis who Influenced the Roman Medicine and founded the Methodist School.

Student of Asclepiades (124-40 B.C.) that is considered the first Doctor who established Greek medicine in Rome, and was born in Kios of Bithynia, was Titus Aufidius Greek from Sicily.

According to professor Benjamin Farrington[25] (Science in Ancient Greece. Pelican Books Ed. 1949 Page 127-132) The project of Titus Aufidius Translated by Kelsus, who described the medicine of his time with references to surgical methods of famous Greek physicians.

Says the Farrington In the original: (publisher of F. Marx 1915).

«Celsus Work on Medicine» is a translation of the work of a Sicilian called Titus Aufidius Who wrote in Greek, pupil of Asclepiades. The debt Of Celsus To Aufidius Revealed by the analysis of his modern editor Fredericus Marx «Corpus Medicorum Latinorum» A. Cornelii Celsi. Martio MCMXV (1915), Aufidius Probably flourished in the last Half Of the first Century BC, The Translation was Made under Tiberius between 20 and 40 AD».

When studying skin vessels were described two comments:
a) Law of Equilibrium (balance law).
«When the vessels in one area were small, Those in the adjacent area were large».

b) Taylor-Palmer: Pig and fresh cadavers. Microscopic extent Tissue perfusion "When The Vessel, lingected In the intact body, the Perifer of cutaneous Staining Never Extent Beyond the expected area, of survive of the potential flap. THE OVERFLOW PHENOMENON "(Taylor- Palmer 1981).

Celsus in Chapter "About the wound of arrows" and on the "Agglutination of in the translation Book of I.H. Anagnostou[26] Athens 1921 «Practical Therapeutic injuries, by Hippocrates and Celsus" states: "Best Trauma the Cycle, securest the straight, easyer Healed the teenager, despite the old. On particular hemorrhaging Veins must be suture in two positions, if this is not Succeeded, by Iron to Hot... To Cut off In the Deep the blood clot, because the wound prevented to the agglutinate must by suture not only the skin, but also a part of the underneath to Including the#. Excellent thread is the most Crushed».

#fascia.

Muscular Platysma (Anatomy)

Thin wide muscle surrounded by Superficial Cervical Fascia. Extends from the skin below the clavicle to the mandible.

Blood supply from one main and many secondary vascular stems. The main is the facial artery and the largest branch of the submendal Artery.

Secondary branches from the transverse cervical, occipital, posterior auricular upper thyroid.

From these come, multiple perforating BranchesColeman[20] 1982), (Uehara[21] 2001).

It is derived from the movement of mesoderma from 2th branchial Arc to the surface of the cervix

Any branchial cysts is always below the platysma, besides of the Neurovascular Cervical Bale.

(Common carotid, internal jugular), Hypoglossal, Glossopharyngeal), in the lower part of the Sternomastoid Muscle.

Is situated Superficial Of the cervix together with the Superficial Cervical Fascia, and belongs to the Superficial Anteroside Cervical muscles, together with the Sternocleidomastoid

The Superficial Branches of the cervical plexus give 4 nerves. Of these underskin Cervical, derived from A2, A3, under platysma in the cervix gives an anodic and a descending branch. The anodic innervates the skin of the upper Anterior out area of the cervical surface. The descendic penetrates the platysma and is distributed to the skin of the inferior anterior and lateral surface of the cervix.

Below the muscular plane is the major Auricular Nerve.

In the out oblique line of the Lower Jaw near the Genial foramen (from where pass the General Nerve and blood vessels), Terminalis Fibers of the platysma.

Below the platysma pass: Outside jugular, skin branches of cervical plexus and cervical.

Platysma is located below the Superficial Cervical Fascia which is a unit. Below is the outside and anterior jugular vein, dermal branches of the cervical plexus, and below the Superficial lamella of the Deep Cervical Fascia.

There is easy movement of the platysma and skin. The muscle acts as a mimic muscle, By participating in expressing emotions (innervation from the facial nerve).

Under the skin, and Superficial Cervical Fascia, is located the common carotid and the cervical branch of the internal carotid.

The Superficial Cervical Fascia Surrounds the platysma below the subcutaneous fat.

The dermal branches of the cervical plexus, derived from the anterior branches of A2, A3, A4, are located behind of the medial Jugular and the sternocleidomastoid muscle outward. Penetrating a) subrertebral fascia, b) Superficial lamella of the Deep Cervical Fascia, to the skin of scalp and neck skin which Innervate.

The descending branches of the cervical plexus are the Supraclavicular nerves, penetrating all the layers up to the skin. Deeper than the nerves, are the Superficial Cervical vessels, Within the fat of the cervix.

In The omoclavicalar or Subclavian triangle is skin, subcutaneous fat, Superficial Cervical Fascia and platysma, subcutaneous connective tissue and the lower extremity of the medial jugular (Superficial lamella of the Deep Cervical Fascia, Middle Cervical Fascia, fatty body of cervix, body neck, subvertebral).

The Fascias are penetrated of the supraclavicular nerves, while the fatty body of the cervix contains Lymph nodes and vassels.

The Anterior cervical triangle (Anterior Triagle Of Neck) contains skin, Superficial Cervical Fascia, muscular platysma, and the Deep Cervical Fascia.

Platysma with the Superficial Cervical Fascia, skin, subcutaneous fat, subcutaneous connective tissue, dermal branches of the cervical plexus, Arterioles And Veinlets, final branches of vessels, and Superficial lamella of the Deep Cervical Fascia, Contained in the Submandibular space (Submaxilary Space), Submental space, Carotid triangle.

The 2^{η} and 3^{η} part of the subclavicular comes in relation to the skin, the Superficial Cervical Fascia and the muscular platysma.

(The 1η part of the right is covered by the muscular platysma, while the left is not)

The (External Carotid), is covered by the Superficial lamella of the Deep Fascia, the Superficial Fascia, the muscular platysma and the skin, in its first part.

First branch is the upper thyroid artery (Superior thyroid), originally carried Superficialmy Covered by all the above, and gives Many final branches – as otherwise the 2th branch of carotid, the Linguistic (Lingual) in its first section.

Under the platysma and Superficial Cervical Fascia, Sideways is the anterior Facial Vein. Also the External Jugular Vein, formed by the posterior facial and posterior Auricular. The platysma acts on the Retraction of the lower mandible until exarticultion in the case of oral abrupt Kataspasis e.g. yawning.

In continue is the (Depressor Anguli Oris), and intersects with the Risorius. So The movements are many and dangerous for the flap, and its survival.

Keep up with the Masseter Muscle.

The facial artery after 2η part passes immediately under the platysma which Supplies Blood, and in front of the masseter, where is reganized its pulse with compression on the mandibular bone.

By kinetic (motorius) fibres of the facial nerve (cervical branch), between the belemnoid foramen and the parotid.

The platysma derived from the 2ο branchial Arc, located superficially Directly below the skin, is covered by the Superficial Cervical Fascia, and extends from the subclavian area sideways of the cervix to the mandible. Is conneted to chin (genion) on it skin, lower jaw and oral muscles.

Below it lies the Superficial lamella of the Deep Cervical Fascia and the external jugular, from the angle of the mandible to the middle of the clavicle, collecting the blood from the outside area of the skull (Posterior facial and posterior Auricular To Subclavian).

The upper part covers the Anterior Jugular, which collects blood from the skin and the muscles of the cervix to the subclavian. It also covers dermal branches of the cervical plexus and draws the corner of the mouth.

Auxiliary bundles gives upwards, to the temporal, mastoid and frontal area, and down to the sternum and 4η Side.

Innervation:

Final branches Sub dermal Cervical nerve
and 2 final branches Supraclavicular Nerve
They emerge from the cervical plexus, from anastomoses of the first 4 cervical Nerves (branches of facial).

The external jugular, immediately below the platysma (continue to the posteriot facial), penetrates the Superficial Cervical Fascia And ejects to the subclavian.

The anterior jugular, penetrates the Superficial Cervical Fascia and ejects to the external Jugular or Subclavian.

The Superficial Cervical Fascia lays Under the pratysma and the skin.

The subdermal Cervical nerve is an aesthetic nerve, for the middle cervical area.

The left carotid origins from the aortic arch, while the right carotid from the anonymous artery.

External carotid: Anterior branches: Upper thyroid, linguistic, external Maxillofacial.

Internal branch: Ascending pharyngeal.

Posterior branch: occipital, posterior Auricular.

Final branches: posterior Temporal, mandibular. Below the muscle lies the external jugular which ejectr to the subclavian vein. Below the upper section lies the Anterior jugular-Do also in the subclavian vein.

Under the platysma lie the side The cutaneous branches of the cervical plexus.

Innervated from the cervical branch of the facial nerve

Above the platysma lies the Superficial Cervical Fascia, and below in loose connective tissue, lies the external the and Anterior jugular and skin branches of the cervical plexus.

The posterior cervical triangle (between trapezoida and sternokledomastoid, Contains from the outside to the inside, skin, subcutaneous fat, Superficial Cervical Fascia, platysma muscle, external Jugular, Major Auricular Nerve, subbermanl Skin Cervical nerve, cutaneous branches of the cervical plexus, superclavicular Nerves and Superficial Cervical artery.

The external jugular receives the largest amount of venous blood, from the outer skull surface, and the Deep face.

It is covered by skin and platysma. The posterior outside jugular, collects blood from the skin and Superficial Muscles of the upper cervical area, while the Front jugular from the skin and muscles of middle Anterior cervical area.

Debriefing Original flap

The tensile of skin is typical mechanical property, known as Flexibility. Of course "Absolute attraction does not mean absolute extent" as according to the law of Hook In physics.

Excessive tension strangels the vessels and Affects Thus the survival of the flap – as observed in 1904 by the Berger[27].

Of course in the face due to large Vascularity from anastomoses between skin arteries, "The white flap will become pink flap", but generally "safe flap is the pink flap", subject to mild rotation.

The rotation flap, published by Imre[28] 1928 and 1942.

Certainly in the "Pythagorean flap" because of the quadruple flaps it is impossible to follow the maximum tension lines, known as lines of Langer, which were first published by the Dupuytren[29] Thirty years before the Langer[30], 1834 in Paris and 1861 in Vienna in corresponding.

Esser 1918 first described the bilobed flap[6].

The Zeta Technique (z) described First by Horner[31] 1837 and later Berger[27] In 1904, used in his book on orthopedic Surgery the Multizeta technique.

Of course, during the traction of the advancement flaps or the turn of the rotation, a dermal elevation of the type of small cutaneous wave, known as "Dog Ear". The triangles remove by pre-planning Burow In 1855, known as Triangles Burow[24]

After first descriptions of rotation flap, follows the frontal flap applied by the Fricke[32] 1829 For lower eyelid defect coverage, By variant of the first described and famous "Indian flap" for the coverage of the nose defect, as described in the Ground (Bada) «Sushruta"In 700 B.C.

Other flaps before 20th Century is the flap from the upper to the lower lip, know and as.

Abbe flap fromr, Stein 1848, Buck 1864, Estlander 1872, Abbe 1898.

Despite efforts to name Stein Flap, from the first descriptive, the flap was named Abbe-Estlander.

It is common the Omission of the Name of original author, as well as the double chreak advancement flap from Webster 1955, which is an (modification) amendment to the originally described flap by the Bernard 1853 in Paris, more than 100 years earlier.

Of course it would be a maximum omission if the names of the champions were not mentioned.

A) Gaspare Tagliacozzi 1597, For local and long flaps. Local flap doner areas for defect correction Ear and mose (Venice 1597).

B)Carpue 1814, For the frontal flap Indian 700 B.C.) With a view to Restoration of large nasal defects.

Carpue, reading an article in 1794 Gentlemans Magazine, performed the flap in 17 minutes without anesthesia and in 2 phases.

C) Warren (1840) for the advancement.

D) A. Pare. Suture technique following his experience as a military physician. "I covered it, God will heal it."

E) Pancoast. Two years after Warren (1842), Also applies and advancement and rotationflap, for the coverage of nose defects with donor area Cheek, following the work of Tagliacozzi.

F) Dunham 1893. Axial flap based on the temporal artery, For restoration of nose and cheek after removal Bcc Carcinoma.

Subsequently, 6 years later the Monks (1898), Applies the same technique to cover the lower eyelid defect, after removal of skin cancer.

G) A. Carrel[33] 1910. The classical work.

«The Treatment Of Wounds» Jama 55, 1910, following observations of wound healing during the war, and research at the Institute Rockefeller of New York. He was awarded the Nobel Prize in 1912 and wrote the book "Man This Unknown".

H) Lister 1867. For antisepsis-sterilization. Based on Pasteur's observations. Earlier mentioned in the Bible use wine in the wounds, and in the Odyssey of Homer Rhapsody 22, For the use of sulphur. Odysseus said to the servant Euryclia "bring sulfur which cleans the infection, and fire."

I) Koh. 9 years After Lister and for five years (1876) Robert Kox Also dealt with the antiseptics.

J) Koller 1884. Upon suggestion of the Freud, Publish to the Lancet His work on cocaine use as a local anesthetic for the eye.

4 years earlier the Annep, Had published cocaine use as a local anesthetic in German medical journal, a substance used as an anesthetic by the American Indians.

In 1885 the professor Of Surgery at the University Johns Hopkins, Baltimore, Publishes 1000 cases of local anesthesia with cocaine infiltration into the aesthetic nerves.

20 years later, the Procaine 1904, and the Lidocaine (Xylokayni) in 1948, which is widely used today alone, or Together with Adrenaline (Epinephrine).

K) Bovie. Electrocautery. Hemostasis with the homonymous Device. Ditector of the Biophysics Laboratory at Harvard (Boston). His device was for the first time used by Cushing, a famous neurosurgeon who published an article in 1928 in the Surg. Cynecol Obstet, Referendot in Bovie. Previous year Published In Lancet).

O Bovie Sold the patented device for $1 and was withdrawn in Maine retribution to (Liebel of the company Liebel- Flatsheim Of CINCINNATI-Ohio, who helped him financially in its creation).

It is noteworthy that three publications of the first describer were preceded by D'Arsonval, In Cont Rend Soc Biol 1891 and 1893, and his device was used for multi of diseases.

The term Desiccation Method, was used in 1910 by the W.L.Clark In Philadelphia (from the Latin Desiccate = dry) in two publications about the destruction of skin cancers in magazines Am Med. Assoc (1910) and N.Y. Med Journ (1911).

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