Made in Italy for hernia: the Italian history of groin hernia repair*

Ann. Ital. Chir., 2016 87: 118-128
pii: S0003469X16024465

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Made in Italy for hernia: the Italian history of groin hernia repair

The history of groin hernia surgery is as long as the history of surgery. For many centuries doctors, anatomists and surgeons have been devoted to this pathology, afflicting the mankind throughout its evolution.
Since ancient times the Italian contribution has been very important with many representative personalities. Authors, investigators and pioneers are really well represented. Every period (the classic period, the Middle Age, the Renaissance and the post-Renaissance) opened new perspectives for a better understanding. During the 18th century, more information about groin anatomy, mainly due to Antonio Scarpa, prepared the Bassini revolution. Edoardo Bassini developed the first modern anatomically based hernia repair. This procedure spread worldwide becoming the most performed surgical technique.
After World War II synthetic meshes were introduced and a new era has begun for hernia repair, once again with the support of Italian surgeons, first of all Ermanno Trabucco.
But Italian contribution extends also to educational, with the first national school for abdominal wall surgery starting in Rome, and to Italian participation and support in international scientific societies.
Authors hereby wish to resume this long history highlighting the "made in Italy" for groin hernia surgery.

KEY WORDS: Bassini, Groin hernia, History, Prosthetic repair

Introduction

The history of groin hernia is the history of surgery [1]. Since the dawn of surgical history, groin hernia has been a subject of great interest [1-3]. In reviewing its evolution in chronologic sequence, the contribution of Italian anatomists and surgeons is so numerically significant and relevant to deserve a separate chapter.
This article would like to highlight the "made in Italy" of groin hernia surgery, in other words the major contributions of Italian physicians and Italian medical Schools to the progress of surgical therapy of hernia through centuries.

The classic period

Groin hernia was well known and documented among the ancient Romans. Its treatment was based on herniotomy, cauterization, castration, plasters, bandages and even offerings (Fig. 1). The so-called specialists were often mocked as in Marziale, who wrote:

**1st World Conference on Abdominal Wall Hernia Surgery, Milan, April 25-29, 2015*
Pervenuto in Redazione Luglio 2015. Accettato per la pubblicazione Novembre 2015
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Fig. 1: Etruscan-roman ex-voto on groin hernia (5th century B.C.).

"*Cascellius weeds out or heals a bad tooth, Hygine burns hair incommoding the sight, Fannius raises without cutting the uvula, Eros erases the sad stigma of slaves, Podalirius Hermes reduces hernias (Mar. Epi. X, 56).*

Hernia treatment probably represented a problem and a challenge for the doctors/surgeons of that period, among them Celsus. Aulus Cornelius Celsus (14 B.C.- 50 A.D.), firstly introduced Greek and Alexandrian medicine to Rome (Fig. 2). He was an encyclopedist, most likely the first medical writer and not himself a surgeon. Celsus was a disciple of Asclepiades, a Bitynian physician who practiced in Rome. He is known as the *Latin Hippocrates* but also as the *Cicero of Medicine* for his fine literary style in writing *De Medicina*, the oldest important medical document after the *Corpus Hippocraticum.* In the 7th and 8th book of his work, he discussed "cures by the hand" (surgery). Suture, left hanging, and cautery were indicated for hemostasis and to enhance scarring. As a good encyclopedist, he tells about procedures adopted by others, advises the use of a sleeping draft (*marion*), describes surgical instruments, including a retractor hook-shaped (*corvus*). This work represents an "*antelitteram*" treatise dedicated to hernia where he even speculates on a "*rupture* " of the peritoneum (before Galen!) as cause of groin hernia. Different techniques, according to the type of hernia (inguinal or scrotal), to the age of the patient and to the clinical stage (strangulation or pain only) were also described. Celsus documented the use of transillumination to distinguish hydroceles, suggested to preserve the testicle and a safer use of truss (*bracherium*), mainly in young and old patients. For strangulation he indicated fasting, bed rest, plasters, bandages, warm baths and finally taxis. Celsus' detailed description of the operation for the treatment of *"those lesions which are apt to arise in the genital parts around the testicles"* for whom *"the nature of the said region must be briefly described first"* is still one of the most mentioned in the history of medicine.

"*Now sometimes the inguinal region has to be cut into, sometimes the scrotum.. after stretching the scrotum, so that the skin of the groin is rendered tense, the cut is made below the abdominal cavity, where the membranes below are continuous with the abdominal wall. Now the laying open is to be done boldly, until the outer tunic, that of the scrotum itself, is cut through, and the middle tunic reached. When an incision has been made, an opening presents leading deeper. Into this the index finger of the left hand is introduced, in order that by the separation of the intervening little membranes the hernia sac may be freed. Next the assistant grasping the scrotum with his left hand should stretch it upwards, and draw it away as far as possible from the groins, at first including the testicle itself until the surgeon cuts away with the scalpel all the fine membranes which are above the middle tunic if he is unable to separate it with his finger; the testicle is let go in order that it may slip downwards, and show in the wound and then be pushed out by the surgeon's fingers, and laid along with its two tunics upon the abdominal wall. There whatever is diseased is cut around and away… The testicle having been thus cleared is to be gently returned through the incision along with the veins and arteries and its cord; and it must be seen that blood does not drop down into the scrotum, or a clot remain anywhere. This will be accomplished if the surgeon takes the precaution of tying the blood vessels; the threads with which the ends of these are tied should hang out of the wound; following upon suppuration they will fall off painlessly. Through the margins of the wound itself two pins are then passed, and over this an agglutinating dressing."* [4].

The Middle Ages

After the fall of the Roman Empire, both Islam and the Christian Church interdicted surgery ("*ecclesia abhorret a sanguine*"), that was then abandoned to barbers, cutters and incisors. In later centuries, in Umbria, near Norcia, flourished and developed the *Schola Chirurgica Preciana,* starting from experiences handed down from father to son and forming over time real dynasties of doctors. *Preciani* had a good medical culture and excelled in some

Fig. 2: Aulus Cornelius Celsus (14 B.C.-50 A.D.).

Fig. 3: Rolando Parmensis (1198-1280) - from "Rolandina".

fields, among which the surgical treatment of groin hernia, essentially based on castration and herniotomy.
Beside these, relics, exorcisms and prayers were more and more relied upon and quite all the knowledge of Alexandrian and Graeco-Roman surgical culture went lost. Many ancient texts were recovered only by retranslation from Arabic after the Crusades. Thus Albucasis' work, including the operative procedures and original instruments for hernia treatment, reappeared thanks to its translation into Latin by Gerardo da Cremona (1114-1187), who was born in Italy but spent his lifetime in Cordoba, Spain, where he died.
At the beginning of the thirteenth century as the first writer on surgery in the West, Ruggero Frugardi (Rogerius Parmensis), whose work was first printed at Venice in 1490, and then included in several editions of the text *Chirurgia Parva* by Guy de Chauliac. His *Chirurgia Magna* is substantially the sixth book of Paolo d'Egina, the last of the classical Greek writers. Following him, came his pupil and commentator, Rolando Capelluti (1198-1280), who was also named Parmensis. With Rolando there was a new impetus to groin hernia treatment by hernia reduction in position upside down anticipating the Trendelemburg position (Fig. 3). His work, a concise surgical manuscript *(Rolandina),* was based on that by Ruggero, with notes (*additiones*) and some references to Hippocrates, Galen, and Avicenna, which did not appear in the text of his master.

Another Italian contribution to the treatment of groin hernia comes from Lanfranco da Milano (1250-1310), who exported procedures from the Salernitan medical school to France. In his treatise *Chirurgia Magna,* Lanfranco recapitulates the different chances of hernia treatment in vogue at the time, namely castration, cauterization and ligature and suggests the "*golden ligature*" to avoid orchiectomy. He was disciple of Guglielmo da Saliceto (1210-1277), the most celebrated surgeon of his century who, after nearly a millennium, tried to melt the medical culture and the surgical art again. He was responsible for the description of the descending of omentum in the scrotum.

The Renaissance and the post-Renaissance Era

During the Renaissance, prominent figures in hernia surgery are represented mainly beyond the Alps. In Italy, Antonio Benivieni (1440-1502) gave a literary contribution with his book *De Abditis Morborum Causis*, where he describes different types of hernias. The *Schola Chirurgica Preciana* reached its top with figures like Orazio di Norcia, mentioned by Fabricius d'Acquapendente as a skilled surgeon performing 200 herniotomies in one year. Another Italian contribution to hernia surgery comes as well from Alessandro Benedetti (1460-1525) who improved the "*golden liga-*

Fig. 4: Hieronymus Fabricius d'Acquapendente (1537-1619).

Fig. 5: Antonio Scarpa (1752-1832).

ture" technique, already described by Lanfranco da Milano, in order to prevent hernia recurrence.
At the beginning of 16th century, the most distinguished Italian surgeon was Hieronymus Fabricius d'Aquapendente (1537-1619), a disciple of Gabriele Fallopius (1523-1562) who succeeded him as professor of anatomy at Padua (Fig. 4). His principal discoveries and writings relate to anatomy and embryology, but he was also professor of surgery. In his *Pentateuchos Chirurgicum* (1592) and *Opera Chirurgica* (1623) he attempts to rationalize the treatment of hernia. In "*incomplete hernias*" (those that are limited to groin), he suggests warm baths in oily water, cataplasms, diet and bed rest. Alternatively, if the hernia is scrotal, the section of the sac and the suture of superficial ring ("*sutura reale*") are indicated. His eclecticism makes him a forerunner of modern tailored surgery. In the next period Padua imposed itself as the main city for groin hernia. In fact, in Padua taught as well the famous Italian anatomist Giovanni Battista Morgagni (1682-1771) with his disciple Antonio Scarpa (1752-1832), named "*the father of groin anatomy*" for his contribution to surgical anatomy of the inguinal region and to hernia surgical technique (Fig. 5). In his *Trattato sull'ernie, memorie anatomo-chirurgiche,* one of the first entirely dedicated to hernias, published in Pavia in 1817, he accurately classifies "*vulgar or oblique"* hernias, provides technical tips to spare spermatic and epigastric vessels, interprets the mechanism of strangulation, and finally suggests to cure hernias by taxis, limiting surgery to cases of failure.

The Bassini Era

When compared to preceding, the 19th century begins without any substantial change in hernia surgery. Truss, herniotome, bleeding, leechs and, why not, votive practices, were still in fashion [6]. Francesco Ratti (1810-1890), professor of surgery at Rome, in his manuscript wrote:

The operation should be performed only when the hernia is incarcerated or strangulated because the operation is always dangerous, often deadly… Anyway surgery is not curative.. When the wound is healed, before than the infirm leaves his bed, it is necessary to wear the truss and so to prevent the recurrence of hernia

During these years many attempts are reported, still without any intent of hernia "repair". The first feeble effort perhaps is to Bartolomeo Signoroni (1797-1844), professor of surgery in Pavia before then in Padua, who proposed a new procedure for the radical treatment of inguinal hernia, consisting of three different types of introversion of hernia walls. In 1839 he published the article: *Sopra la intro-retroversione nuova maniera di operazione radicale dell'ernia inguinale* but this method did not achieve satisfactory results, as Signoroni himself recognized.
This was the Italian scenery at the time of Bassini. With him a new era began.
Edoardo Bassini was born in 1844 in Pavia where he graduated as doctor of medicine in 1866. In the same year he participated in the movement of the liberation

Fig. 6: S. Albertino di Fonte Avellana.

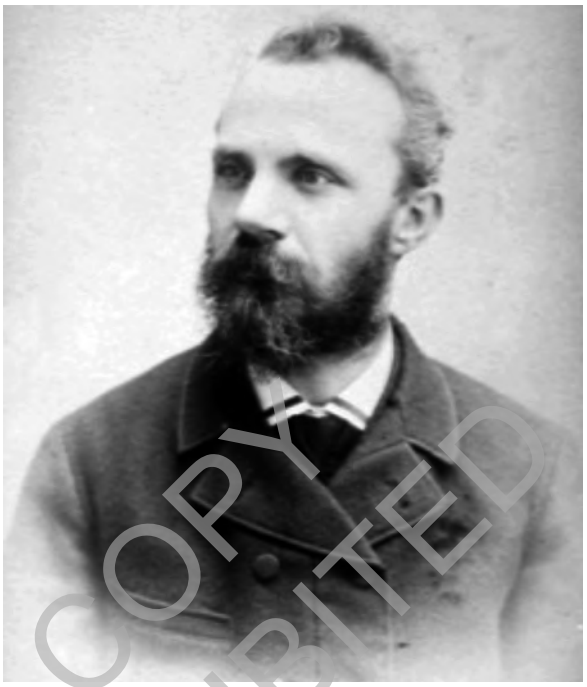

Fig. 7: Edoardo Bassini (1844-1924).

and unification of Italy, enlisting in Garibaldi's army. In the next year Bassini joined a small group of intellectuals under the command of brothers Cairoli with the mission of liberating Rome from the Pope Pio IX. Here he was bayoneted in the groin, resulting in a fecal fistula, and taken prisoner. After some months, Bassini could return home. It was the surgeon from Padua who cured him, Luigi Porta, that encouraged him to resume his studies and to become a surgeon. In 1868 the fistula closed and his surgical career began. In this period he visited Billroth in London, Langenbech in Berlin, and Lister in Wien. Bassini was a skilled surgeon and he first performed tiroidectomy, right colectomy, partial hysterectomy (Fig. 7).

His interest in hernia surgery probably dates back to the period of his illness. He tried different methods of correction, resulting in a high incidence of early failure. In 1884 he performed the first rational repair of the inguinal canal and, after a clinical experimentation, he presented it to the Italian Surgical Society in Genoa in April 1887 [5]. Bassini wrote: *I thought of a surgical technique of physiological reconstruction of the inguinal canal, consisting of two openings, an abdominal and a subcutaneous.*

In 1889 Bassini published his book *Nuovo metodo operativo per la cura radicale dell'ernia inguinale* [6]. This procedure consists of the reconstruction of the inguinal muscoloaponeurotic wall with a suture including superiorly the internal oblique muscle, the transversus abdominis muscle and the transversalis fascia (the triple layer), and inferiorly the inguinal ligament and the iliopubic tract. *… In external acquired inguinal hernias, I operate in the following manner…I incise the skin over the inguinoscrotal hernia region; expose the aponeurosis of the external oblique area, which corresponds to the inguinal canal (aperture of the hernia), thus exposing the crura of the subcutaneous inguinal ring, and control bleeding. This is the first step of the operation. In the second step I divide the aponeurosis of the external oblique muscle from the external ring to the level of the internal inguinal ring.…The isolation of the neck of the sac should extend to the iliac fossa…Immediately afterwards I dissect the body and fundus of the sac and draw it outwards, then open its fundus and inspect to see whether or not the viscera contained in the hernia show adhesions.… After reducing the contents I twist the sac (the neck),place a ligature proximal to it, and cut off the sac… In the third step I elevate the cord onto the abdominal wall by gentle traction.… I then mobilize the outer edge of the rectus muscle and the triple layer, consisting of the internal oblique muscle, transversus abdominis muscle and the fascia verticalis of Cooper, from the external oblique aponeurosis and the peritoneal adipose tissue, until this united layer can be brought without difficulty to the shelf of Poupart's ligament. After this has been done, I sew these two parts together with interrupted sutures for a distance of 5 to 7 cm, from the pubic bone, laterally to the cord which has been pushed upwards approximately 1 cm toward the anterior superior iliac spine. … In connection with the above mentioned suture, it is advisable to use interrupted silk and to grasp the triple layer 2 to 3 cm from its edge.… If the patient is made to vomit after this phase of the operation has been concluded… one sees that*

Fig. 8: Milan Institute for Hernia for the Poor (1922).

the inguinal region is able to withstand the strongest intraabdominal pressure… In the fourth step of the operation the spermatic cord is replaced … and the external oblique aponeurosis is reunited down to the pillars of the external ring.…[7].

It is unforgettable the thrilling vision of Bassini at work given by Thorwald

…. He incised the skin and the hypodermic tissue below the protruding hernia… A new incision opened the inguinal canal … The hernia sac bulged out, alongside the vas deferens… He opened the hernia sac …and pushed the intestine back …he ligated the sac …and let it likewise drop back into the abdominal cavity. This is what many surgeons before him had already done in the same or a similar manner. Now the crucial new phase of the operation began. .... Immediately afterwards the new abdominal wall lay before us, taut and visibly strong. Bassini nodded to one of his assistants. The young doctor took a feather and introduced it into the patient's throat. Almost immediately the patient gagged and began to cough violently… I stated at the sutures in the newly formed abdominal wall. Would they really resist such strain? My concern was needless. The abdominal wall remained taut and tight until the coughing ceased. Bassini threw us a glance… Bassini straightened up as the students in the stand applauded wildly. [8].

Bassini's initial writings on hernia repair were in archaic Italian and published on little-known journals thus not contributing to the spread of his technique. Only one article, a translation into German (1890), became widely available [9]. Unfortunately the text and the figures were not detailed enough and some of them went lost, thus leading to misinterpretations and initiating the corrupted techniques. Many controversies have risen on the priority of Bassini in the development of this technique, Marcy, a disciple of Lister, claiming his own primacy. But, as Halsted frankly recognized, *"Bassini was the first"* [10]. Edoardo Bassini never published on hernia after 1894 and refused to be involved in controversies regarding priority of the procedure or its modifications.

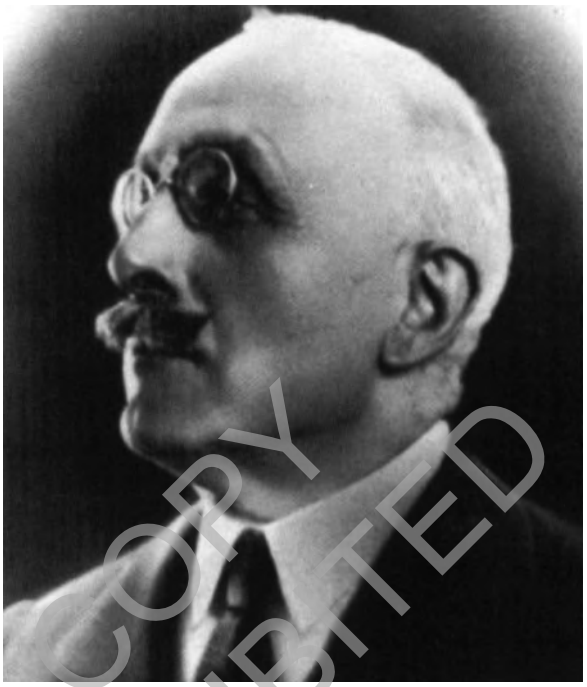

Fig. 9: Attilio Catterina (1861-1944).

"*Edoardo Bassini formed hernia surgery in the same stage of development it had reached during the Dark Age and left it where it stands today*" was stated in 1937, at the 50-year anniversary of Bassini's procedure presentation [11]. Until the beginning of the 2nd millennium, Bassini operation has been the most worldwide performed surgical procedure in general surgery.

Edoardo Bassini was also a philanthropist. When he retired, in 1919, he left Padua and his work and three years later, he donated all his assets to the Milan Institute of Hernia for the Poor (*Istituto Milanese per gli erniosi poveri E.Bassini*) (Fig. 8). This institute represents the first example of a dedicated hernia center before the Shouldice Hospital, established in 1945 in Canada.

Honored and admired, Bassini died in 1924 at the age of 80 [12].

It was Attilio Catterina(1861-1944), Bassini's disciple and colleague, making the greatest contribution to the understanding of the details and technique of the Bassini hernioplasty (Fig. 9). In 1932 he published an atlas entitled *L'operazione di Bassini* with 16 colored figures reproduced for the first time (Fig. 10) [13]. This book was later translated into four languages and published in France, Spain, Germany and England, making this procedure largely worldwide known [14-17]. It became the touchstone of inguinal hernia repair, thanks to its simplicity and its respect for anatomy. For unknown reasons, Catterina's

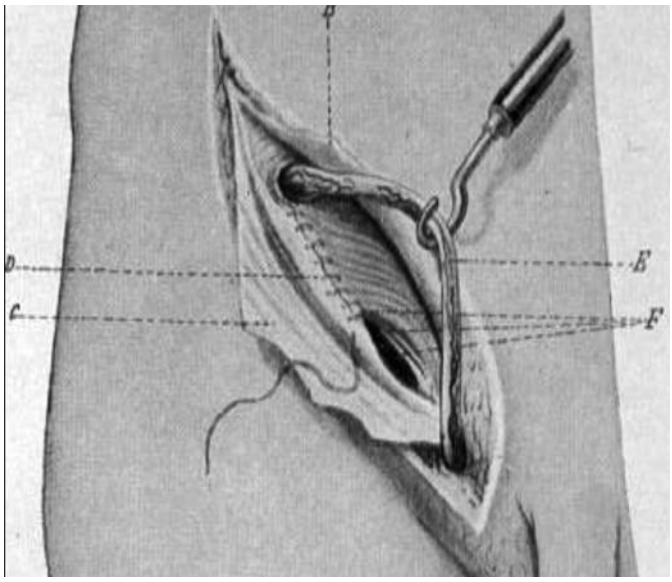

Fig.10: A.Catterina – from Bassini's operation.

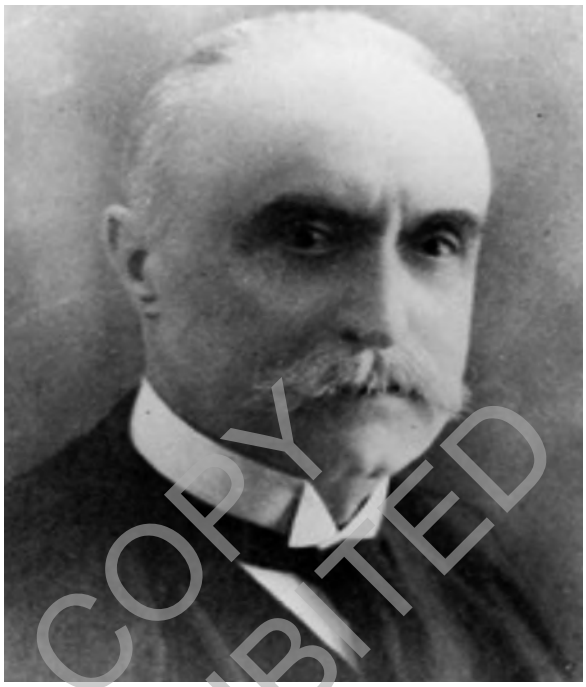

Fig.11: Giuseppe Ruggi (1844-1925).

work was never published in North America, leaving the surgeons of North America ignorant of Bassini's intentions and the Bassini operation underwent several modifications thus originating the so-called modified Bassini.
In Italy also, numerous variations of Bassini procedure were produced over time, but their priority was sometimes erroneously attributed to foreign surgeons, as for the techniques ascribed to Ferguson or Halsted (Halsted II). As a matter of fact, these procedures were worked out by a couple of little-known Italian surgeons, Angelo Mugnai and Pietro Ferrari. There are few news about Angelo Mugnai and Pietro Ferrari, working as surgeons straddling the 19th and 20th century. From 1890 to 1895 Ferrari published many papers and the book *Sulla cura radicale dell' ernia inguinale col metodo proprio. Statistica personale,* illustrating his procedure and his personal series [18].
A modification of the Bassini's procedure was proposed also by Paolo Postemsky (1851-1927), born in Rome to Polish parents, a disciple and colleague of Francesco Durante. Postemsky became Chief Surgeon at Ospedale Santo Spirito di Roma in 1887. Two years later, before the introduction of Halsted I procedure, he proposed his personal modification consisting in the suture of the external oblique aponeurosis behind the cord [19]. This variation, still today largely used when a mesh is positioned to avoid its contact with the cord, represents an Italian contribution too ignored.
In the Italian view of hernia surgery, Giuseppe Ruggi (1844-1925) should not be forgotten for his contribution to the treatment of femoral hernia (Fig. 11). In 1892 he was the first to suture the inguinal ligament to the Cooper's through the inguinal approach in femoral hernia [20]. Only in 1939, McVay popularized this detail in USA.

Another suggestion for femoral hernias is due to Filippo Giacomo Novaro (1843-1934), who proposed to repair the defect using the margin of pectineal aponeurosis.
Davide Fieschi (1860-1953) was another Italian surgeon, unknown to most until recently, contributing to the history of hernia surgery (Fig. 12) [21]. He studied medicine at the University of Bologna and graduated in 1894. During his lifetime he demonstrated high interest in experimental surgery. In 1912, while he was Chief Surgeon at the Ospedale Maggiore di Bergamo, he published an article titled *Nuova carne per la cura dell'ernia femorale* describing the use of a kind of gummy material to obliterate the femoral canal and preferring this to the Novaro operation, performed before [22].

…I have thought if it could be possible for femoral hernia to adapt a piece of tissue to obliterate this canal and I procured that this tissue wasn't taken from the surrounding tissues to avoid demolitions, troubleshooting, movements or bleeding…. I have thought that to obliterate this canal it could be useful a plug. This should have been composed by a proper material… I have chosen a foam gummy…

Fieschi reported his clinical experience with this kind of plug in a man and in a woman, including photos and x-rays, with a six month follow-up.

On June 1912, a man and a woman who came to the hospital to cure their femoral hernia, were operated by myself in this simple way: incision, isolation, ligation of the sac, positioning in the femoral canal of a cylinder of the new

Fig.12: Davide Fieschi (1860-1953).

Fig.13: Giulio Natta (1903-1963).

tissue (foam gummy), skin suture and nothing else. The postoperative course was as usual…After six months I asked them to come back and they appeared perfectly healed.. Everything I stated can be proved by the photos and the X-rays… the body used to plug the femoral canal is still in its position , with perfect comfort of these two workers. Everything I stated can be proved can be proved by the photos and the X-rays.. The body used to plug the femoral canal is still in its position, with perfect comfort of these two workers [22].

When presenting his experience he respected methodological rigor and considered the significance of imaging, patient's satisfaction, return to work and follow-up in validating surgical results, thus anticipating the modern outcome. It is impossible to say why this technique did not spread. The 1st World War, other more diffuse surgical procedures or possible adverse reactions of the gummy over time probably played a role. However, Davide Fieschi's experience backdates more than fifty years the first allocation of the plug, generally ascribed to Lichtenstein in 1974.

The prosthetic Era

At the beginning of the 20th century groin hernia surgery was mostly represented by the Bassini operation. After World War II, synthetic meshes were introduced in the United States, Usher performing pioneering prosthetic procedure until 1968 when Lichtenstein presented his anterior tension-free prosthetic repair that became quickly popular. During following years, several techniques based on the use of synthetic meshes were introduced for hernia repair and progressively accepted. All this has been made possible by the discover of polypropylene, a polymer first synthetized by Karl Ziegler and the Italian scientist Giulio Natta (1903-1963), awarded for this with the Nobel Prize (Fig. 13). This represents another main Italian contribution to the progress of hernia surgery.
The success of the Lichtenstein procedure impressed Italian surgeons and during the '70 they were smart and ready to agree prosthetic surgery. Among them Ermanno Trabucco (1926-2015), for Italy a "*new Bassini*" (Fig. 14). He was born in Casale di Carinola, near Caserta but practiced prevalently in USA. He graduated at the University of Naples in 1950 and after a 3-year experience as medical officer of Marine, he moved to USA where he specialized in surgery, devoting himself to hernia repair. He is credited with pioneering, since 1977 outpatients hernia surgery, a solution today considered routine [22]. In 1989 he developed the mesh plug technique, fast and simple. He was the supporter of the sutureless technique thus anticipating the interest in chronic pain and illustrating the inguinal box (Fig. 15) [23]. Thanks to him, Italian surgeons adopted quickly pros-

Fig.14: Ermanno Trabucco (1926-2015).

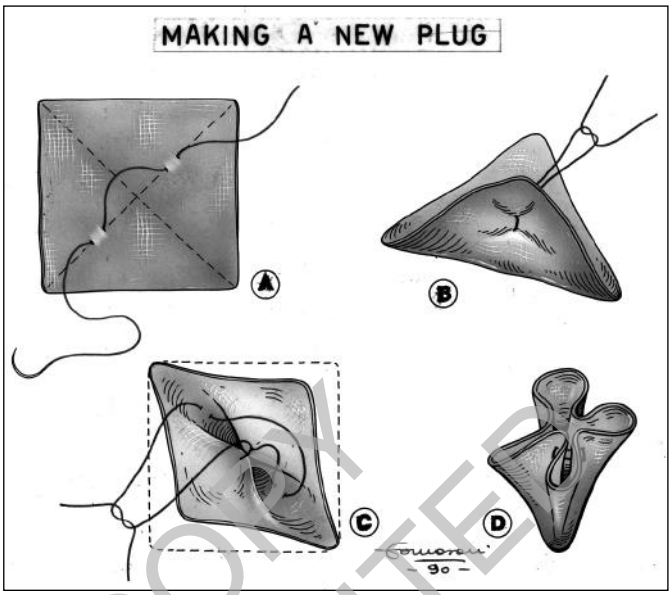

Fig.15: Handmade plug by E.Trabucco.

thetic repair and Italy shortly became one of the Countries where it's more practiced.

His contribution to hernia surgery has gone beyond surgery. Since 1997 he studied and clinically tested different types of polypropylene materials in order to optimize the structure, thickness and rigidity of the mesh and to establish the optimal design of the prosthesis. He has been also a contractor, twenty years ago founding Herniamesh, that from Chivasso, near Turin, exports prostheses and devices for hernia surgery worldwide (Fig. 16).

In the contemporary period, many other Italian surgeons have given their contribution to the progress of hernia surgery. Among them Antonio Guarnieri (1941-2003) proposing in 1988 a non-prosthetic inguinal hernia repair called "*physiologic hernioplasty*", loyal to tissue repair [24]; Gabriele Valenti with his PAD (*Protesi Autoregolante Dinamica*) technique, recalling the importance of the dynamics in hernioplasty [25]; Giuseppe Amato with his flower-shaped dynamic 3D mesh [26] and Andrea Coda (1949-2013), known for his studies on prosthetic materials (Fig. 17) [27].

The Italian contribution to hernia surgery extends also to educational. Two well-known Italian general surgeons, Manlio Carboni (1935-2007) and Piero Pietri (1926-2002), in 1992 affirmatively answered the question, that was then asked "*Must we specialize?*" [28]. In the same year, Sapienza, the University of Rome, firstly founded an official post-graduated course continuing over years. From these ideas started in 2008 the first national School for Abdominal Wall Surgery stimulating the creation of European Schools.

Italian surgeons have given as well an important support to scientific societies that have been created and developed over the years around hernia and abdominal wall surgery as promoting it as an important branch of surgery in its own right. Since the early 1980s, GREPA (Groupe de Recherche et d'Etude de la Paroi Abdominale), founded in 1979 in France, attracted the interest and the participation of numerous surgeons from different countries, first of all Italians. So a fruitful collaboration started with an Italian group of surgeons, Giampiero Campanelli, Paolo Bocchi, Francesco Corcione and Vincenzo Mandalà. GREPA developed into an international society and in 1988 took its new name as European Hernia Society-GREPA (EHS-GREPA) [29]. EHS became a big international society with national Chapters, and among them the active and prolific Italian Chapter, now Italian Society of Hernia and Abdominal Wall Surgery (ISHAWS). Since 1999, three Italians were elected EHS President, Corcione, Mandalà and Campanelli, previously EHS General Secretary for more than 14 years. In 2010 three Italian surgeons held prestigious positions, Enrico Nicolo as AHS (American Hernia Society) President, Andrea Coda as AMEHS (Afro Middle East Hernia Society) Secretary and Davide Lomanto as APHS (Asia-Pacific Hernia Society) President.

The development of EHS is also due to its official organ *Hernia*, founded in 1997 by Chevrel, quickly becoming the well-known prestigious *World Journal of Hernia and Abdominal Wall Surgery,* thus contributing to the international diffusion of ideas and publications. But in Italy, in 1993, four years before the foundation of Hernia, the

Fig.16: Herniamesh – Chivasso (Turin).

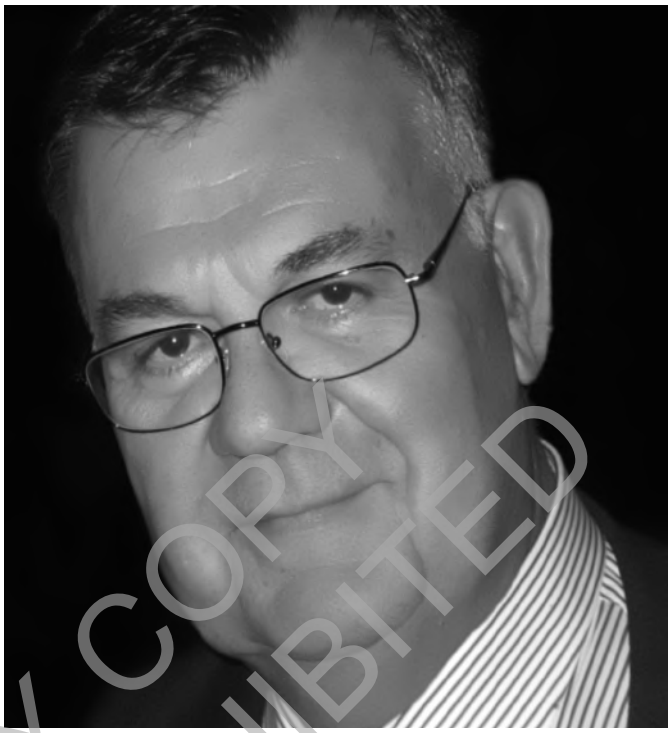

Fig.17: Andrea Coda (1949-2013).

Bollettino delle Ernie e dei Laparoceli was published for the first time. It was the first example of a bulletin dedicated to groin and abdominal hernias. It was edited as four-monthly scientific journal, directed by an Italian surgeon, Dalila P. Greco, with an international board and reported reviews, articles, and news.
All the progress of this long history were made possible thanks to the contribution of the "*made in Italy*" in groin hernia surgery.

Riassunto

La storia della chirurgia erniaria è lunga quanto la storia della chirurgia. Per secoli medici, anatomisti e chirurghi si sono dedicati a questa patologia, che ha afflitto il genere umano durante tutto il corso della sue evoluzione.
Fin dall'antichità il ruolo della chirurgia italiana è stato significativo, con numerosi illustri personaggi che hanno lasciato una traccia indelebile. Sono numerosi gli autori, i ricercatori ed i pionieri che hanno offerto il loro contributo in ogni periodo, dall'epoca classica attraverso il Medio Evo ed il Rinascimento, fino al '700. Nel 18° secolo, le nuove acquisizioni nel campo dell'anatomia umana, ad opera principalmente di Antonio Scarpa, hanno preparato la strada al rivoluzionario metodo di Bassini, che può a ragione essere definito come la prima procedura moderna di riparazione dell'ernia inguinale su base anatomica. La tecnica di Bassini ha avuto una grandissima diffusione, fino a diventare l'intervento più eseguito nel mondo.
Dopo la II Guerra Mondiale, con l'introduzione delle protesi sintetiche è iniziata una nuova era che ha visto ancora una volta i chirurghi italiani pronti ad offrire un sostanziale contributo, primo fra tutti Ermanno Trabucco.
Ma il ruolo italiano nella chirurgia dell'ernia inguinale va ben oltre la chirurgia estendendosi all'educazione, con la creazione a Roma della prima scuola di chirurgia della parete addominale, ed alla partecipazione di numerosi chirurghi alle società scientifiche internazionali, in ruoli di prestigio.
Il presente lavoro ha voluto riassumere questa lunga storia ed evidenziare il "*made in Italy*" nella chirurgia dell'ernia inguinale.

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