SIENA AND ITALIAN LYMPHOLOGY: FROM MASCAGNI TO COMPARINI....TO TOSATTI.

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Everyone knows the importance to consider past acquisitions when preparing future ones.
That's why the President Professor Sara Ferri and the Faculty Board of the Accademy, first of all Professor Mario Comporti have set up the meeting to honour the memory of three Italian pioneers of lymphangiology all of them teachers at University of Siena Italy: Paolo Mascagni, Leonetto Comparini and Egidio Tosatti. Mascagni and Tosatti have been remembered by Professor Corradino Campisi and now it is my privilege to remind you the unforgettable Leonetto Comparini whose activity and tremendous work in restauration and reconstruction of the University Institute of Human Anatomy after the second world war is unquestionable. He was deeply human showing a keen sensitivity in his duty as a teacher and a very capable manager of his own work as well as that of his team. His lectures on the Nervous Central System became famous as well as his Textbook of Anatomy,
But I would like to focus particularly the attention of the audience on to his important work as a researcher, He brought a number of innovations of the Anatomy of the Lymphatic System and he was certainly inspired in this field by his position as Professor in the same Institute of Human Anatomy where Paolo Mascagni has been teacher in eighteenth century. And this worked as a great stimulous for him. Macro and microscopic studies of Sienese School inspired by Leonetto Comparini are fundamental still today in modern Lynphangiology definitely resolving the mistery of the parenchimal tissues lymphatic circulation.
Three Conventions National and International (1971, 1983, 1988) and hundreds of Pubblications bear witness of this life lasting work.
In the last few decades we gathered a steadfast clinical experience in a long lasting, selective and complex treatment of the digestive system, preceding urological surgical procedures.
The essential items were a previous mechanical cleaning, the administration of intestinal antibiotics and antimycotic drugs and the care in restoring the
normal bacterial flora a well known modulator of the immune response. Such a behavior allowed for a completely complication free patient follow-up that was beyond our rosier hopes. Therefore it seemed logical to us to reconsider the relationships existing between Digestive and Uropoietic Systems.
Formerly, the intestinal preparations were imperative, as everyone knows, only when using an intestinal loop to reconstruct a segment of urinary excretory tract (Bricker/Mogg's operations, Ileocolocystoplasties, uretero ileo/coloplasties). The same practice was also customary in case of urinary diversions, (ureterosigmoidostomy, rectal bladders, etc.) or urological operations at risk for rectal lesions. In all those procedures the main goal of the intestinal preparation was to reduce the septic dangers coming from the admixture between faecal matter and urine, during the Patient's follow up.
The certainty of a success, very often beyond the Patient's and our own expectations, has been the fundamental reason for a revival of the so-called Entero-Urinary Syndrome, as it was identified for the first time by the French Urologist Heitz-Boyer at the beginning of last century.
That Syndrome has nothing to do with the well known physiopathologic influence of the Digestive System upon the Uropoietic System (the metabolic consequences of intestinal hemorrage, dehydration, intestinal deseases and surgery for obesity, or external intestinal fistulas etc. upon the renal functions).
The same goes for intestinal troubles deriving from any urological pathological involvement (abdominal pain, stipsis and anal troubles, gastroenteric involvement in nephrological deseases, vomiting, nausea etc.).
The same considerations again hold true in the case of a direct communication between the Digestive and Urologic Systems, such as enterourinary fistulas, or a variety of conditions of different etiology (trauma, TBC, diverticulosis, neoplasms etc.).
Actually the typical Entero-Urinary Syndrome implies the bacterial invasion of an otherwise normal urinary tract due to the anomalous passage of bacteria from the lower part of the Digestive System. Obviously, this possible bacterial flow may certainly reveal a hidden preexisting urinary pathology.
The Urinary troubles, mainly infections associated with megacolon, dolicocolon, sigmoidal diverticulosis, haemorrhoids, segmental ileitis, etc are good examples of Entero-Urinary Syndrome, ordinarily encountered and managed by the Urologist in his practice.
Of course there are symptoms (lumbar, hypogastric and penoscrotal pains, dysuria, pollachiuria, hyperperistaltism etc.) and signs (septic fever, hematuria, positive uroculture etc.) that are very well known to any urologist.
Now it's certainly a known fact that the bacterial bodies are not permitted to pass from the arterial circulation through the glomerular filter. We also know that the so-called ascending way for urinary Infections is a rare event, mainly in male population (it's quite the opposite in the female population).
Therefore it is quite understandable that, in particular conditions, bacteria absorbed by the lymphatic circulation in the lower part of the Digestive System can pass into the lymphatics and then into the Urinary Tract.
In fact lymph from colon/rectum is drained to the Cysterna Chyli (Pecquet) where all the retroperitoneal lymph is also conveyed, including, of course, those amounts coming from the urinary and the reproductive system, in both male and female.
Particular conditions, such as enhanced intestinal peristalsis, antiperistalsis, increased intra-abdominal pressure, meteorism per se, and enteric inflammation are sufficient reason for the inversion of circulation, a very frequent occurrence in the lymphatic system, not to mention the normal direct communications existing between the intestinal and retroperitoneal lymphatic channels.
Moreover it is demonstrated that a passage of urine takes place, indead in case of hydronefrosis, through the renal lymphatic vessels reaching the main circulation (Acconcia, Atti Accademia Fisiocritici) and that a backward lymphatic flow also possibly takes place in the metastatic spread of breast and prostate cancers.