The last remnants of the ultra-radical surgery

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Doctor: you are just a product of your training.

Alexander Brunschwig (1901-1969)

The surgery by the end of the 1940s enters in this phase which will result in its present splendor. Since the end of the 19th century until the mid-1940s was consolidated the formulation of radical procedures such as Halsted-Meyer radical mastectomy, Wertheim-Meigs-Okabayashi radical hysterectomy and radical vulvectomy, some of them, still in force. Incidentally, that same date the world is recovered from the irrational devastation of the Second World War. The massive destruction of Hiroshima and Nagasaki in 1945 chronologically coincides with the emergence of thinking of ultra-radical surgical oncology at its finest. A trend that was raised to give the fight against a tumor by the more aggressive surgery that humanity would know. If radical procedures increasingly encouraging results were registered, why not go further? Under that premise arise ultra-radical mastectomies with extensive chest wall resections, lymphadenectomy in remote sites, pancreatoduodenectomy, interescapulo-thoracic resections, maxillary commands and even hemicorporectomies as part of the varied technical repertoire of this trend.

In Gynecological Oncology the leading figure associated with the ultra-radical school was Alexander Brunschwig (1901-1969). Born in El Paso, Texas and son of Alsatian immigrant, he was a student of excellence. Initially he performed a residency in pathology, later developing his surgical...
training at the universities of Chicago and Strasbourg, in a historic stage characterized by the predominance of the surgery; time in which radiotherapy was the most promising and interesting alternative but still considered experimental.

In 1935, Whipple, Parsons and Mullins described the first pancreaticoduodenectomy for pancreatic head cancer in two stages, i.e. with the deferred anastomotic reconstruction phase. However, acknowledged to Brunschwig as the first to perform it in a single time in 1937, fact that was recognized by Schwartz and Maingot in his famous texts of surgery in 1974.

In 1947, Brunschwig was invited to lead the Department of Gynecologic Oncology of New York Memorial Hospital. He coincided with two of the most outstanding ultrarradicalistas: Hays Martin in the Department of head and neck, and with Ted Miller pioneer of ultra-radical amputations. As well Boronow describes were the glorious days of the ultra-radical surgery. In terms of the large pelvic resection, although the first procedure of total pelvic exenteration for rectal cancer is attributed to Eugene Bricker in 1940, Brunschwig was one of the most experienced in this procedure, especially in gynecological cancer. The extensive intervention consisted of excision en bloc of bladder, distal ureters, uterus, annexes, vagina and an abdominoperineal resection of anorectum, together with the pelvic lymph nodes. Urinary and digestive tract reconstruction was carried out by means of an ureterocolostomy, dubbed wet colostomy. It was imperative a strict hemodynamic support with electrolyte solutions and blood that flowed alongside the swift movement of giant scissors specially designed for such intervention. Once completed the phase of resection and exteriorization of the stomata, the pelvis was packed with bulky rolls of gauze that retreating under sedation after 48-72 hours by perineal via in-room. This surgery was, for its time, an alternative therapy with proven effectiveness, with an overall around 20% five-year survival. However, for his first 22 cases report, one of every four patients died during the surgical act due to uncontrollable bleeding. (2)

It is currently a procedure reserved in Gynecology especially for surgical rescue of patients with central relapses of tumors of the cervix and vagina previously treated with chemo-radiotherapy, erecting in one of the last redoubts of the ultra-radical. With an intraoperative mortality less than 5% and an overall survival at 5 years between 30 and 50%, that has improved mainly due to the diligent selection of the cases in which could register a real benefit. The preoperative laparoscopy and the use of advanced imaging studies have also been crucial in this sense. Another aspect that has evolved in a marked way as reconstruction independent methods are the continents heterotopic neobladders, the neovaginas and low colo-anal anastomoses with a reduction of the impact of post-operative sequelae. Likewise the conventional laparoscopic approach and recently robotics assisted, run to the improvement in the control of the disease and postoperative morbidity.

Pelvic exenteration, a procedure that the same Brunschwig qualified as cruel and brutal, preserves indelibly in its essence has been devised during the most radical in the history of surgery. However it reissued from a few years ago as a valid alternative but with an important cost in morbidity and emotional impact on the patient. It is seen as the only effective way to rescue a centropelvic
relapse when chemoradiotherapy is no longer an option, and with a really interesting survival rate. A surgical intervention that has been cleverly reinvented in its perception, indications and technique from seven decades as one of the most evident demonstrations that the surgery, as well as energy, is not created or destroyed, only transformed.

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