PANCREATIC CANCER

The Pancreas is a gland that produces hormones such as insulin with its endocrine component and digestive enzymes with its exocrine component. It is an organ situated behind the stomach, at a deep level touching the spinal column and it is a single one, so in case of an illness surgery must be considered very carefully because complete removal, although possible and necessary in some cases, causes insulin-dependent diabetes mellitus.

Pancreatic cancers are divided in malignant and benign; the benign ones can be cystic or solid, the latter arising from the endocrine component of the organ. Benign tumors are relatively rare and have a range of treatment options that starts from simple observation (asymptomatic tumors, smaller than 2 cm, without radiological characteristics of aggressiveness) and come to surgical resections that can be complex and delicate, which must be done in specialized centers with a high number of interventions.

Malignant tumors of the pancreas represent a real oncological challenge, because, despite the progress achieved in recent years by surgical techniques and medical therapies, most cases lead to the death of the patient. In Italy every year about 9000 people become ill with this cancer, with a mortality rate of 90%, of which the most frequent type is ductal adenocarcinoma, so to constitute the sixth leading cause of death from malignant disease in our country. The only ascertained risk factor is the smoking of cigarettes, while family history is present in 10% of these tumors. Although precocious diagnosis is a crucial aspect to improve the prognosis, effective screening methods do not exist as for other types of cancer. The initial signs of the illness are not very specific and when symptoms appear in 80% of the patients the tumor is no longer susceptible to radical surgical therapy. In these cases, preoperative chemotherapy is able to bring back to the surgeon a portion of Patients. Today the efforts of the scientific community are enormous in trying to get effective, specific therapies as has already happened for other types of cancer the prognosis of which has very much improved in recent years. It is certain that today multimodal treatments (chemo-radiotherapy, thermal ablation) guarantee in terms of survival results that are more and more satisfying. Verona is the most important Centre at a national level and is among the top three in the world for the treatment of pancreatic cancers. For these reasons, thirty years ago an interdisciplinary group was created consisting of the study and treatment of these diseases and over 3500 patients are seen annually in the Centre directed by Professor Pederzoli.

The future will be in genomic research and for this purpose a consortium of researchers from the World's most prestigious universities has been set up who chose as the sole representative of Italy Verona, just for the experience gained on neoplastic diseases of the pancreas. This prestigious award has allowed us to obtain significant funding from the Italian Ministry for Universities and Scientific Research, in order to make our own contribution to the study of the genome of pancreatic tumors in this epoch-making collaboration between centers of excellence. In Verona, thanks to the experience accumulated over the years, the mortality rate after radical surgery, is the lowest in the world and also complications have been reduced.