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The prognosis for pancreatic cancer patients – better than feared

EDITORIAL

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Cancer of the pancreas is aggressive, and treatment options are limited. But a nihilistic attitude to treatment is inappropriate.

In Norway about 700 patients each year are found to have pancreatic adenocarcinoma. Many of them do not get the treatment that could have extended their lives and reduced their discomfort since delayed diagnosis results in the tumour becoming inoperable. Radical surgery is the only treatment that can result in a permanent cure. Five-year survival after this treatment is approximately 20 – 25 %, while ten-year survival is about 15 – 20 %. Five-year survival of over 50 % was recently reported for a sub-group of patients with a small tumour and no lymph node metastases (1).

Cancer of the bile ducts, duodenum and papilla Vateri, together accounting for around 600 new cases in Norway each year. These patients present clinically in a fairly similar manner to cancer in the pancreatic head, and they need the same assessment and treatment. Distal pancreatic cancer, i.e. tumours in the corpus/cauda, is now increasingly detected *before* it generates symptoms due to the greater use of abdominal CT, MRI, ultrasound and PET scans. For the past fifteen years, laparoscopic distal pancreatic resection has been carried out at Oslo University Hospital immediately after the detection of lesions in the corpus/cauda. The five-year survival among patients with adenocarcinoma is

around 30 % (2). This is substantially higher than the previous postoperative outcome. The main reason is probably that the patients underwent surgery before they developed symptoms.

Despite faster and more reliable investigation, many patients can only be offered palliative treatment. There is reason to believe that many patients with inoperable pancreatic cancer are under-treated: the existing oncological options, i.e. chemotherapy and radiation treatment, could probably be offered to more patients who would benefit from them. Endoscopic and pharmacological palliative treatment may by practiced rather arbitrarily, for example as follows: The common clinical problems loss of appetite, nausea and vomiting may be caused by obstruction of the duodenum by an expanding tumor. This problem can be resolved by endoscopic duodenal stent, i.e. without surgery (3). It has also been documented that steroid treatment can improve appetite and nourishment in cases of cachexia, in patients without duodenal obstruction. But routine steroid treatment has no effect when it is administered to patients with a duodenal obstruction – a condition that can easily be recognised in advance by gastroscopy. In such a situation, delays in inserting a necessary duodenal stent lead to loss of quality of life – in some cases to a shorter lifespan.

In locally advanced pancreatic cancer, vital mesenteric vessels are infiltrated by cancerous tissue. This used to be regarded as a sign of inoperability. It has now been documented that these T3 tumours can be radically removed by surgery including vascular reconstruction with the same post-operative morbidity and prognostic gain as T1 and T2 tumours (4). In a series of 160 patients with borderline resectable tumours, treated with neoadjuvant radiochemotherapy, only half underwent surgery subsequently. Some of the remaining patients may therefore have lost an opportunity for surgical treatment. This illustrates the difficult diagnostic and therapeutic choices associated with pancreatic cancer, but it also shows that the possibility of curative treatment is not lost in locally advanced disease.

Pancreatic cancer can develop from cystic lesions, and these mucinous cysts can be identified by endoscopic ultrasound examination with puncture, aspiration and analysis of cystic fluid. These lesions should be removed because of their malignant potential. The prognosis is very good when they are removed surgically while cell changes are at the dysplasia/carcinoma in situ level. Systematic application of this knowledge will probably contribute to a substantial reduction in mortality due to pancreatic cancer.

Patients with pancreatic cancer should receive multi-disciplinary assessment, followed by surgical, endoscopic, oncological and palliative treatment as soon as possible after diagnosis. Coordination is imperative and it should start during a multidisciplinary treatment meeting. The patient's own priorities and how they view their own state of health are important, and quality of life as reported by the patient should be recorded prospectively.

It is surprising that patients do not make clearer demands of the treatment system. One probable explanation is the rapid progression of the disease, resulting in severe loss of strength and growing fatigue as death approaches (5). In studies, the patients stop filling in their quality of life forms during the last

weeks of their lives – they just don't have the energy! Patients with pancreatic cancer do not complain vociferously. The healthcare system has therefore been able to «turn their back on them» with impunity.

We now know as a result of basal research that the immune system plays an important part in the long-term survival of pancreatic cancer patients. K-ras and telomerase mutations occur in most cases of pancreatic cancer, and a copy of mutated K-ras peptides has been produced and tested as a cancer vaccine. It was administered as adjuvant immune therapy to 23 patients after resection of pancreatic cancer (6). Five- and ten-year survival were 29 % and 20 %, respectively, and immune reaction to tumour cells with mutant K-ras could be detected nine years after the vaccination. It is tempting to suppose an effective immune defence system to be a cause of long-term freedom from recurrence. But a great deal of clinical testing remains to be done before this can be included in the routine treatment.

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