RADICAL SURGERY IN PROSTATIC CANCER

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The Scandinavian urologists used to be very conservative concerning radical treatment of organ confined prostatic cancer. The Scandinavian prostatic cancer group (SPCG) enquet from 1982 revealed that the percentage of hospitals with "no treatment" policy was for Denmark 86%, Norway 77%, Sweden 60% and Finland 42%.

At the Section of urology, Bergen University Hospital, we followed the main stream in Scandinavia and did not treat intracapsularly located prostatic cancer prior to 1984. In order to prove our "no-treatment" policy correct, we followed 25 patients with intracapsularly located cancer throughly from 1977 to 1984. All patients were without distant metastasis as judged by a negative bone-scintiscan, negative chest X-ray, negative intravenous pyelogram and normal acid phosphatasis. They should also, and in our view this was very important, be without metastasis to the regional lymph glands. To fulfill this requirements they should have negative bipedal lymphangiogram supplemented with negative fine needle aspiration cytolgy from 10 normal appearing regional glands. Thus we were reasonable sure that they had organ confined disease. Five patients had T0 focal, while 3 patients had T1 diffuse diseases. Of those with palpable disease, one had a T1 nodule and 16 were considered to have a T2 disease as judged by finger palpation. When we analysed this small material in 1984, we found that of the 5 patients with T0 focal diseases non had progressed, of the 3 with T1 diffuse all 3 had progressed and 2 had died of their prostate cancer. The one with the T1 nodule had not progressed but of the 16 with T2 nodules, 9 had progressed and 1 had died from his prostate cancer.

Thus we had to realise that under our "no-treatment" policy, 12 out of 25 patients (around 50%) had passed from a potentially curable stage to an incurable one. This came as somewhat of a shock to us, and as a consequence we turned 180° around in our treatment policy and from 1984 started to treat organ confined prostate cancer with radical prostatectomy according to Patrick Walsh's nervesparing method.

From 1984 through 1990 altogether 91 patients have been intended for radical prostatectomy at our institution. Of these 13 operations were interrupted because there were found regional lymph gland metastasis preoperatively by frozen section in 7 and advanced extracapsular tumor growth in 6 patients. In 1984 we performed radical prostatectomy on 4 patients, in 1985 on 8, in 1986 on 12, in 1987 on 20, in 1988 on 13, in 1989 on 10 and in 1990 on 11 patients. It is too short observation time for meaningful data on survival, time to progression etc. for the 78 operated patients. However, I would like to share with you our experience with radical prostatectomy as a treatment modality in various other aspects.

Since radical prostatectomy is considered a major urological operation with various technical difficulties one should probably expect that the operating time should decrease with increasing experience. In our material this did not happen. The median operating time was 3.3 hours with over 60 patients being within the time limit of 2.5-3.5 hours. The whole range was from 2 hours up to 5.5 hours with one notable exception. This patient, whom we operated upon in 1989, needed a reoperation and altogether the operating time was around 11 hours. He had an almost uncontrollable bleeding and needed 60 units (500 ml/unit) of blood during the operations. Forty-nine of our patients needed from 1 to 4 units of blood, 13 needed 5-9 units and in 13 patients no blood transfusion was necessary at all. Again there is no remarkable difference between the early years and the last years but it is notable that 11 of the 13 patients who needed no blood were operated upon after 1988. The median number of peroperative given blood units in the whole material was 2.6.

Another interesting aspect is the validity of preoperative grading. In most of our patients the preoperative verification was done by fine needle aspiration cytolgy. Preoperatively there were 40 with well differentiated cancer, 34 with moderately well differentiated cancer and only 4 with poorly differentiated cancer. After the pathologists examination of the surgical removed specimens there were no residual tumor in 5 patients, only 19 had well differentiated cancers and the number of moderately well differentiated cancers had increased to 41 and poorly differentiated cancers to 13. Thus there is obviously a marked "under-grading" in our material. Of the 5 patients with no residual cancer 3 had actually been treated with TUR and obviously had all their...
cancer tissues removed by that operation. In the 2 other patients it turned out that their preoperative biopsies were false positive, actually they had had no cancer at all. These two patients were among the 10 first operated upon and they learned us, the hard way, of the importance of good cooperation with cytologists/pathologists preoperatively.

Full urinary continence or only slight persisting stress incontinence was achieved in 66 patients in from weeks and up to 24 months postoperatively. Total incontinence or grave incontinence was the result in 8 patients and 4 are not evaluable at this time. Our continence rate of a round 10% is rather high. The reason for it is not entirely clear, it could be due to faults in operative technique or a matter of radicality in the apex area.

We had no pre- or postoperative mortality, even though we had one patient who we nearly lost. Three patients got anastomotic strictures, 2 were easily treated with internal urethratomy and 1 with more extended operations. We had one fistula between rectum and the anterior abdominal wall. It did not, however, involve the urinary tract and it healed after temporary sigmoidostomy. We tried to perform the nervesparing operation according to Patrick Walsh. Our data on potency are only preliminary. Of 56 patients with supposed preoperative intact potency, only 20 have regained erectile capacity after the operation so far.

The most interesting aspects in our judgement is the question of preoperative T-stage accuracy. The operative specimen was serially wholemount sectioned (distance 5 mm) and prepared for histology. All the 78 patients were preoperatively supposed to have intracapsularly located diseases as judged by the finger, by transrectal ultrasonography and by CT-scan of the prostate. After the serial sectioning and histological examination the pathologists could show that in 44 patients (56%) there were capsular penetrations and/or seminal vesicle invasions, they were actually pT3 diseases. This fact rises some intriguing questions. Hopefully we have cured some of those 34 patients with truly organ confined disease as well as some of those 44 patients with extracapsular extension. On the other hand one might have the feeling that of those 34 with intracapsular disease many would never had progressed what so ever, so in fact we may have overtreated many of these. On the other hand it would be naive to believe that we have cured all those 44 patients with extracapsular extension. These cancers have proven their malignant potential by their capability of capsular penetration and seminal vesical invasion. So there is the possibility that many of these patients have been undertreated. This highlights the question concerning adjuvant hormonal and/or chemotherapeutical treatment for cancers which have extended beyond the capsule. For patients with truly intracapsularly located disease there is no way that we can pick out those which will be killers from those which will remain localized for the rest of the patients life. Histologic or cytologic differentiation, tumour markers, DNA analysis, hormone reseptor studies, nuclear roundness, cell motility etc. are all group prognosticons. What is urgently needed is some "magic tool" by which we could define the malignant potential in the individual prostatic cancer case. Until we have such a "magic tool" we have to realize that we probably overtreat some and undertreat others. Hopefully some have also been cured from a deadly disease.

At our institution we used to be stubborn conservative regarding treatment of organ confined prostate cancer. We became superexcited enthusiasts for radical prostaticctomy in the first years after 1984. By now we are somewhere in between and realize that radical prostaticctomy alone may not be the final answer regarding treatment of organ confined prostate cancer.