Cervical Cancer a Hidden and Untreated Problem in Sub-Saharan Africa. Can we Offer Effective Therapy?

Editorial

Cervical cancer is the commonest cancer and in Ethiopia with 7,600 of the 22,000,000 million women over 15 being diagnosed and 6,000 dying each year [1]. This is probably an underestimate as many women are too poor to seek treatment or live in rural areas where diagnosis is not possible. It will take many years for any screening program to have an impact and in the meantime there is no realistic prospect of these women receiving any treatment. A screening program using visual inspection of the cervix with acetic acid is currently under discussion but has yet to be implemented. Access to radiotherapy is difficult as there is only one functioning machine in Addis Ababa. So in a predominantly pastoralist and rural community, radiotherapy treatment is not possible as the cost of this, transport and accommodation costs are prohibitive. Pelvic side wall dissection and lymphadenectomy in modern practice is of prognostic rather than curative value, and positive lymphadenopathy usually leads to treatment with chemo-radiotherapy and overall a poor prognosis. Lymphadenectomy has significant short term and long term morbidity, haemorrhage from damage to the side wall vessels, neuropaxia and lymphocele. Ethiopian women are predominantly slim and multiparous making radical pelvic surgery relatively straightforward [2,3].

Even Wertheim in his pioneering early series of operations realized that lymphadenectomy had a high morbidity and abandoned this part of the procedure later in his career. It is now a question that is difficult to answer in ‘high income’ countries as any women with positive lymphadenopathy would be advised to have further treatment. It is however worth reviewing the literature from the middle of the 20th century when the debate about lymphadenectomy was at its height. The early proponents of radical vaginal hysterectomy argued strongly against lymphadenectomy Navratil [4] from Graz in a monograph published following a meeting of the ACS in Munich in 1968 quotes Professor McClure-Browne [4] as stating that if the nodes were positive there was no point in the dissection and if negative no need. (There is a signed copy of this in the RCOG library). In his discussion, Shaw also pointed out, that good results can be obtained when the regional lymph nodes are left undisturbed. As evidenced by the relatively small number of women with stage 2 disease that have positive lymph nodes, both spread into the nodes and growth in the nodes can be slow and largely asymptomatic.

The clinical manifestations of cervical cancer are very distressing for the women; a persistent blood stained and offensive discharge, chronic infection and brisk post coital bleeding which leads to chronic anaemia and ill health, making already difficult lives even more miserable. Equally lymph nodes can grow quite large without clinical symptoms, ureteric obstruction usually being the result of local spread rather than metastatic involvement. It would thus seem that surgery to totally remove local disease would be both life-saving and give good relief of symptoms, provided that it can be safely carried out with minimal morbidity in simple surgical facilities with limited equipment. In many ways the facilities available in Sub-Saharan Africa mirror those of Wertheim and other early pioneers, with the difference that antibiotics and intravenous fluids are now available. I set out to test this hypothesis [5].

Between February and July 2012, 19 women with presumed cervical cancer were seen. Three women were stage 3b and one woman was stage 4, so only symptomatic treatment could be offered. It is possible to reduce the infected discharge slightly with metronidazole, anaemia can be treated with iron and analgesia, both anti-inflammatory drugs such as diclofenac and Tramadol are available relatively cheaply. One woman with stage 2 disease declined treatment but radical hysterectomies were carried out on 15 women, 14 abdominally and 1 radical vaginal hysterectomy. The histological report did not confirm cancer in the latter case but there was severe nodular ulceration and she was very symptomatic. Histological examination is a rarity in rural Ethiopia and transport of specimens difficult, it is even difficult to obtain formaldehyde with which to preserve specimens. This meant that it was not practical to take pre-operative biopsies and the diagnosis had to be made clinically. One woman undergoing abdominal hysterectomy had severe nodular ulceration but no cancer on histological evaluation. The majority of the cases 11/13 (84%) were stage 2 disease and the cervical diameter was at least 3cm. It was possible to get a measured 3cm cuff on all the specimens and in no case was it felt that there was any residual disease clinically though fibrosis and adhesions around the ureter and into the anterior vagina were common suggesting that microscopic invasion was likely, though at the end of the procedure we were happy that we had complete surgical clearance.

Some of these women have very large families and still young
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children; they come from an agrarian community and have to work on the land to allow their families to eat. If left untreated they will have a protracted period of ill health, not only preventing them from working but requiring care in their own right and will eventually die from infection, anaemia or uraemia leaving a family uncared for. Clinical disease free time will, even if it does not affect a cure, allow them to live a normal and productive life for longer. The average cost of the procedure in a fee for service American missionary hospital was £100 ($152, €115), which is beyond the pocket of the average rural family and the surgery was only possible because of charitable donations from the international committee of the Royal College of Obstetricians and Gynaecologists and from a private donor. However with continuing charitable donation this surgery would be available to many women and offer training opportunities both to oncology trainees in high income counties and local gynaecologists but would require a considerable support network (Figure 1 & 2).

Figure 1: This is an intra-operative photograph showing that the parametric has been dissected free an that the uterine artery has been divided close to the internal iliac artery. There is extensive dissection of the vagina allowing a good margin of normal tissue.

Figure 2: An extirpated uterine and upper vaginal specimen showing extensive tumour (the black bit with a vaginal secondary.

References

1. Pathfinder International Ethiopia (2010) Combating Cervical Cancer in Ethiopia. Adis Testefa, Ethiopia, p. 1-2.
2. Graham J, Otto L, Paloucek F (1962) Carcinoma of the Cervix. WB Saunders & Company, Philadelphia, UK.
3. Wertheim E (1912) The Extended Abdominal Operation for Carcinoma Uteri. American Journal of Obstetrics & Gynaecology 66: 169-222.
4. Navratil E (1969) Vaginal Surgery for Carcinoma of the Cervix. Springer Berlin Heidelberg publishers, New York, USA, pp. 600-606.
5. McClure Browne J, Discussion of Management of Cervical Cancer. Journal of Obstetrics & Gynaecology of British.