DOES THIS SARCOMA NEED DRASTIC SURGERY?

Short accounts of interesting cases, some medical disasters, involving pathology and clinical practice, from the recollection of *Prof. Albert Cilia-Vincenti.*

I started my postgraduate histopathology training, in 1971, at The Royal Marsden Hospital in Fulham Road, Chelsea, situated opposite The Brompton Chest Hospital. These are old hospitals with a reputation. The first open thoracic operation in the world was said to have been performed at the Brompton to remove a lung tumour which turned out, on pathological examination, to be a solitary secondary deposit from a renal cell carcinoma, and with claimed long patient survival after the pneumonectomy and excision of the kidney bearing the primary tumour.

The Royal Marsden was previously called The Royal Cancer Hospital – the name was obviously changed not to add more anxiety to already very worried patients. Its consultant surgeons were trail-blazers in oncological surgery – often very drastic operations few surgeons could perform. Extensive surgery to remove the primary tumour and all the local lymphatic field was then believed to be the only way to cure cancer. Mind you, the oncological surgical skill to perform an adequate first local clearance of the primary tumour is still crucial for possible cure, depending on the tumour type, such as, low grade soft tissue sarcomas, where cure is only possible if the first excision is complete and no local recurrence occurs.

Better understanding of tumour biology and the different tumour propensities for metastasis, eventually led to less drastic surgery. When I got to the Marsden, Mr Raven, the senior surgeon, had just retired. He had published a series of surgical oncology books, and his treatment for breast cancer, for example, was often the Halsted radical mastectomy, an attempt to remove internal thoracic intercostal nodes, a bilateral oophorectomy and adrenalectomy. Soon after, Veronelli and Bonadonna in Milan, showed that lumpectomy and their introduction of adjuvant chemotherapy gave better survival than all that drastic, disfiguring surgery.

The Marsden's histopathology department was also highly regarded, particularly because of its head, Professor Noel Gowing. He was recognised as a leading diagnostic surgical pathologist, not only in UK, but also in America. A visiting American oncologist, taking part in a clinico-pathological conference at the Marsden in 1972, pointed out that the Marsden's osteosarcoma survival figures were poorer than American ones, and that the reason was that Gowing's diagnoses were accurate while some American cases had been benign lesions over-diagnosed as osteosarcoma. One warning drummed into us at the Marsden was that the most serious mistake in oncology was a wrong diagnosis of cancer in the relatively young, leading to unnecessary, possibly mutilating surgery and/or radiotherapy and chemotherapy. This warning would haunt me throughout my career.

Gowing used to receive a lot of material for second opinion. Sometimes the referred histological slides would accompany the patient. One such case I remember was a teenage girl from northern England, sent to the Marsden for surgery to remove an "osteosarcoma of the breast". The girl had reportedly fallen off a horse, hitting her chest against the ground and, soon after, a firm, deep, enlarging breast lump was noted. Gowing showed us the plain X-rays of this mass situated between the breast and the chest wall and characterised by fine ossifications. He asked us to note that the ossifications, interpreted as evidence of osteosarcoma at St Elsewhere, were forming a sort of ring at the periphery of the mass and that there were none in its central tumour zone. Turning to the histological slides, he explained that the centre of the mass consisted of undifferentiated, proliferating connective tissue which, as it grew outwards, was maturing and differentiating towards bone formation, responsible for the X-ray features. This was not osteosarcoma – this was a focus of "myositis ossificans" following muscle injury. All that was needed was minimal surgery to remove the lump. Sometimes the Marsden was a purveyor of happiness – good, rather than bad, news.

This is now the mid-1980s and I'm a consultant histopathologist in Winchester. A local teenaged girl has had a deep thigh lump biopsied. It is radiologically attached to the femoral periosteum and suspicious of osteosarcoma. The lump apparently followed soon after a fall from a horse and grew rapidly. I ask for the X-rays because I suspect this sounds similar to the case I remember at the Marsden. Indeed it was, both radiologically and histologically. Great relief all round – and the pathology department gains credit with its audience – the local medical community. But don't be overconfident Mr Pathologist and watch out for banana skins which might be round the corner.

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