EDITORIAL

# Getting it right the first time

**Dr Thomas Hilton***

Department of Orthopaedics, Groote Schuur and Red Cross Children's Hospitals, University of Cape Town, Cape Town, South Africa

**Corresponding author: thomas@drthilton.com*

'Ignorance more frequently begets confidence than does knowledge: it is those who know little, and not those who know much, who so positively assert that this or that problem will never be solved by science.' Charles Darwin, The Descent of Man, 1871, p. 3.

This quote from Charles Darwin applies to many things in the world of medicine and orthopaedics but none more so than that of orthopaedic oncology. As oncology surgeons strive daily to move away from the 'tumour and sepsis' stereotype and to deal with sarcomas rather than tumours, so too are we also trying to improve the treatment of sarcoma patients in South Africa. There is no reason why 'whoops' procedures should still occur or for a non-qualified surgeon to 'give it a go'. The risk of patient morbidity is just too great. Focus and attention to detail in the history and examination of a mass or the reading of a radiograph can give enough information to determine whether a mass is of concern for a sarcoma or not. If there is concern, a referral should be made.

While there are not many orthopaedic oncologists in South Africa, they do exist in the main centres. A quick phone call or text message is all that is needed to ensure the correct treatment of a patient. SOLS (South African Oncology and Limb Salvage Society) is a developing body within the SAOA. This sub-speciality, although not formally recognised by the Colleges of Medicine of South Africa (CMSA) as such, has a lot to offer in the way of innovation and patient treatment, and not only in sarcoma patients. Our 3D-printed, custom CAD/CAM prosthetics with their various coatings, non-invasive electromagnetic growers, side-plates and biological integration solutions have application throughout orthopaedic surgery and beyond. SOLS surgeons can be useful from the beginning of a complex case and not only after numerous revision surgeries have left only a leaf of bone onto which an overly expensive prosthesis must attach.

Management decisions and operations in sarcoma and metastatic bone disease surgery are complex, even at the best of times, and involve numerous moving parts. These decisions are made difficult by the quagmire of grey data, retrospectively collected on only a handful of patients. Often, no one decision is correct. This makes the use of a multidisciplinary team (MDT) so important in sharing the burden of decision-making. Making good clinical decisions, which underpins the rest of the treatment course, hinges on getting accurate information. Henry Mankin, who is regarded as one of the fathers of orthopaedic oncology, famously said, '… the registrar may perform the resection but the consultant should perform the biopsy…'. We have evolved from open biopsies to core needle or even fine needle aspirations of sarcomas. There is enough evidence to suggest that the tract of a core needle biopsy can be ignored and that no excision of the biopsy tract is needed. This is a tangible benefit aside from avoiding the morbidity of an open biopsy. Open biopsies are easier to get wrong and involve more skin resection when excising, making closure an issue, particularly with proximal tibia resections. This has real value in our environment, where often out of geographic and temporal necessity, the biopsy must be performed outside of a main sarcoma centre.

The improvement of orthopaedic oncology practices, the rarity of the condition and the difficulty in decision-making, even in the setting of an MDT, highlight the importance of dedicated sarcoma professionals. Just because a biopsy has been done well does not mean that a diagnosis will be easy; not every radiologist can flag a malignant process and not every pathologist can look at a biopsy and provide an accurate and confident diagnosis. Sometimes, the tissue architecture is just too bizarre and the immunohisto-chemistry and molecular genetics not specific enough to make a diagnosis. It is not uncommon for a specimen to be sent around the world for opinions. This is why local and international collaboration is so important. The pathology, radiology and the clinical picture need to marry to come to an accurate diagnosis which leads to correct treatment. When there is uncertainty, it is the experience of the team that will make the difference in effecting the best treatment for the patient.

Is the treatment of a potential sarcoma patient overly involved and costly? Yes, probably. We will over-investigate some of these patients, but this is preferable to jeopardising life and limb by getting it wrong at the start. Often, the experience of the MDT can make better and more judicious decisions regarding investigations and limit over-investigation. Simple principles will help to identify a problem lesion. For a soft tissue mass, it is Robert Grimer's golf ball tool that is helpful in deciding which soft tissue sarcomas are dangerous. The golf ball was found to be the best object to approximate a 5 cm mass that, if deep to fascia, requires urgent imaging and referral. Often an ultrasound is all it takes to screen such a mass. For a bony lesion, a plain film X-ray is often more useful than the sharpest MRI scan and it is not infrequent that our radiologists will ask for an X-ray if it has not been done.

When the correct diagnosis is not made or a lesion deemed benign that is malignant or an inadequately trained surgeon takes on one of these cases, the result can be disastrous for the patient. While mortality is often not greatly affected, morbidity certainly is. One only needs to look at the cosmetic and functional cost to the patient in rectifying an incorrect procedure. This is not to say that all 'whoops' procedures are negligent, but if the rules are not strictly followed, mistakes can be made. Identifying the problem, imaging appropriately and performing a biopsy prior to rushing to excision


DOI 10.17159/2309-8309/2023/v22n4a0

will prevent the majority of errors. Often, a mistake made in the beginning of a management course can send the team and patient down a rabbit warren of further incorrect decisions and treatments.

Why do we take on cases that are outside our scope of practice? Would patients view us as lesser surgeons if we referred them to a colleague rather than doing the operation ourselves? My experience of state practice here in South Africa and in the NHS in the United Kingdom, is that the time taken for a sarcoma to be suspected and referred is almost the same as the time taken for a surgeon to tell their anaesthetist that the patient is moving. Is the fight for authorisation, prosthetic limit and PMB status really worth it? - not to mention the difficult postoperative course and constant liaison with labs, oncologists, physicians and rehabilitation personnel. Despite these challenges you will find sarcoma surgeons are more than willing to receive these cases if it means getting it right the first time.

Is it because of lack of access to an oncology team? Is it the expense patients incur when travelling vast distances to a main centre with a sarcoma unit? We are fortunate in the Western Cape to have two large state centres and several surgeons in the private sector, but what about the Eastern Cape or Mpumalanga? In our unit's experience, which is shared by other units, patients do not mind travelling if they know they are coming to the right place to receive the right treatment.

Where do the solutions lie? Should some conditions be treated only by surgeons or centres certified to be treating that condition? Does this extend to revision arthroplasty, spine surgery and ankle replacements? Do funders play a role in recognising that oncology patients need to be treated by orthopaedic oncologists only? Cost is a huge issue in sarcoma surgery and the management of prosthetic joint infections, these two conditions being scarily similar in their management. Getting it right the first time here is also terribly important – so much so that the NHS in the UK has developed specialist centres which must qualify and prove that they can capably and safely perform these surgeries with acceptable success rates. Surgeons in non-approved centres may still perform the operation but do not get paid for it. We may not have this luxury in SA but we certainly have the skills, and patients can have world-class treatment if performed by the right team.