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Oncology

X-ref ***For other Roundups in this issue that cross-reference with Oncology see:*** *Children's Orthopaedics Roundup 7.*

100% required for 'good response' to chemotherapy

A paper questioning the traditional 'cut -off' between poor and good responders in patients of Ewing's sarcoma from **Birmingham (UK)**[1] has caught the beady eyes of the editorial board here at 360. The study team reviewed all of their patients treated for Ewing's sarcoma between 1980 and 2012. They grouped patients according to percentage of necrosis after chemotherapy with < 50%, 50% to 99% and a total 100% response. In terms of survival there were, as would be expected, some significant differences between the groups. The authors established event-free survivals of 45%, 59% and 89% for all of their groups respectively, and overall survivals of 49%, 72% and 94%. One might perhaps expect the results to be better for the 50% to 99% response rate, and the authors concluded that only patients with 100% necrosis after chemotherapy should really be classified as having had a 'good response' to chemotherapy, with significantly poorer survivals in those patients with any viable tumour in the surgical specimen. This may have implications for the addition of adjuvant therapy in the post-operative period, both in the need to add local radiotherapy and to intensify subsequent chemotherapy in the 'poor' responders.

Local controls and survival

Sticking with the theme of survival and tumour eradication, this study from **Villejuif (France)** set out to evaluate the relationship between local control and overall survivals in patients with extremity soft-tissue sarcomas.[2] The authors were able to report on the outcomes of over 500 consecutive patients, all treated for a primary soft-tissue sarcoma at a single centre. Outcomes were reported to a median follow-up of seven years and the investigators report the local recurrence and overall survivals. Their results were all in all good with an 8% local recurrence rate and 80% five-year overall survivals. The predictors of poorer overall survival were, perhaps unsurprisingly, higher grades of tumour, leiomyosarcoma, male sex and age. Perhaps more surprisingly, however, tumour size, margin status, and local recurrence were not. The authors went on to develop their own multivariate analysis to examine the specific tumour subtypes and surgical factors associated with local recurrence. Their analysis suggested that a diagnosis of epithelioid sarcoma or myxofibrosarcoma and margin size < 1 mm correlated with local recurrence. However, grade of tumour and the tissue constituting the surgical margins did not. The authors concluded that specific subtypes and surgical margin size < 1 mm correlated with a higher local recurrence while neither the margin status nor local recurrence affected the overall survivals. Perhaps an important take away message is that tumours demonstrating a higher local recurrence rate could require wider local margins.

Surveillance of sarcomas?

One of the perennially difficult problems to solve in any field of cancer surgery is how, and for how long, patients should be followed up after their orthopaedic diagnoses. Surgeons in **St Louis, Missouri (USA)** have tried to reach a consensus as to what is a reasonable follow-up for soft-tissue sarcomas.[3] The authors undertook a survey of the Musculoskeletal Tumor Society (MSTS) membership to establish what the current practice was as to follow-up strategies. The authors were able to achieve a 20% return rate, but although a relatively small percentage, all were 'experts' by a commonsense definition. The main message from this survey is that surveillance strategies utilised by MSTS members are arbitrary; rather than being evidence-based, they are based on training continuation and inherent caution. This interesting, but simple, study really does raise the question of excessive radiation exposure during imaging for surveillance of sarcoma.

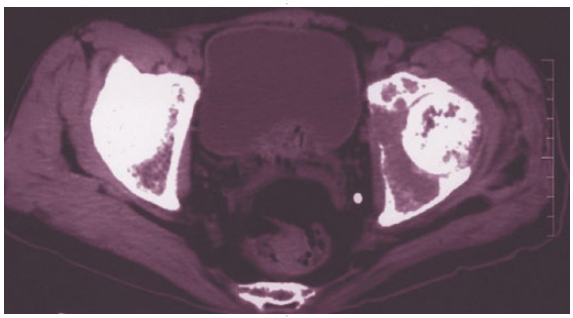
Patterns of disease relapse in primary extremity soft-tissue sarcoma

The previous article highlighted the non-standardised and variable surveillance strategies that are commonplace amongst sarcoma specialists. This paper provides something of an evidence base to suggest that the patterns of post-operative surveillance could be tailored to sarcoma diagnoses. The 'unwanted outcome' relapse following soft-tissue sarcoma excision is surprisingly poorly examined, with few studies investigating the outcomes of recurrent sarcomatous disease. A research group in **London (UK)** aimed to characterise the patterns of disease relapse in patients undergoing resection of primary extremity soft-tissue sarcoma.[4] Of the 556 patients who underwent resection at the Royal Marsden Hospital between January 2004 and January 2014, the local recurrence-free survival (LRFS) did not differ significantly between histological subtypes. Distant metastasis-free survival (DMFS) and disease-specific survival (DSS) were found to differ significantly between sarcoma subtypes, and the worst outcomes were seen in patients with pleomorphic undifferentiated sarcoma (PUS). However, when the authors undertook a more comprehensive multivariable analysis, histological subtype was not found to be independently prognostic for LRFS, DMFS or DSS. Metastatic disease developed in 149 patients, with the lungs being the most common site of first metastasis. This series suggests that the patterns of distant metastatic disease in extremity sarcoma are not uniform, and histological subtype should be considered alongside other patient and tumour factors, such as tumour grade and size, and patient age, in order to facilitate tailored follow-up regimens.

Conservative management of desmoid tumours is safe and effective

The desmoid tumour remains something of an enigma. Historically, surgical excision has been the mainstay of treatment, however, the current trend has been a move towards

a more conservative approach, away from intervention. The research team from **Sacramento, California (USA)** based their paper on the outcomes of 47 serial patients, all with a diagnosis of desmoid tumour.[5] The authors compared those with conservative management (n = 20) to those with surgical excision (n = 24), with outcomes assessed as tumour recurrence *versus* tumour progression. Follow-up data were available to around three years. Perhaps surprisingly, those patients who did not have excision actually had a more successful outcome with significantly fewer progressions and recurrences than in the patients managed with excision.



Trabectedin in chondrosarcoma

■ Chondrosarcomas are traditionally thought of as insensitive to chemotherapy, nonetheless, there may be some light at the end of this proverbial tunnel from collaborators in **Tokyo, Japan**. Their subanalysis of trabectedin compared with best supportive care suggested a mild benefit in favour of the chemotherapy.[6] This is a very small study, and readers should always be cautious of giving too much weight to secondary analyses of randomised controlled trials with small subgroups. However, this does give a hint that there may be a drug treatment possible for various types of chondrosarcoma. Further investigation is clearly warranted here.

Ewing's sarcoma, primary management and outcomes X-ref

■ This paper from a North American collaborative examines differences in primary management of patients with Ewing's sarcoma of the femur and how this might impact on outcomes. Based in **Houston, Texas (USA)**, the authors report the outcomes of 115 patients across three complementary group trials, and outcomes in terms of recurrence were analysed according to local control method.[7] The group consisted of 84 patients with surgery only, 17 with surgery plus radiation, and 14 patients had radiation only. The overriding message here is that the authors find no differences in the outcomes in terms of survival between those having surgery alone, surgery and radiotherapy, or radiotherapy alone. They do not, however, clarify exactly why that particular modality was chosen, and therefore do not detail the various confounding factors and potential selection biases. Radiotherapy alone, for instance, would usually only be chosen for very well-responding tumours while a combination would be administered in those with a poorer response rate. In addition, the authors do not discuss issues with regard to function. Although a laudable attempt to compare the three strategies, one cannot help thinking that there are too many flaws and too few patients to really take much of value away from this paper.

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Children's orthopaedics

X-ref ***For other Roundups in this issue that cross-reference with Children's orthopaedics see:*** *Spine Roundups 5, 6, 7; Oncology Roundup 7.*

Hip arthroscopy for paediatric hip septic arthritis? X-ref

■ Arthroscopy has been used routinely for the diagnosis and irrigation of septic arthritis of the knee and other joints, and had become the gold standard of care, offering visualisation washout and adequate debridement of the whole joint. Used routinely in the knee, shoulder, elbow and ankle, it strikes us as odd that it isn't standard of care in the adult hip at least. Although arthroscopy has been used in childhood knee septic arthritis (SA), it has not replaced open arthrotomy in the treatment of childhood hip SA, mostly due to the requirement for traction and utilisation of lateral-sided portals. This makes 'standard' hip arthroscopy difficult to perform in children. Previous authors have described single portal techniques without traction, but there are obvious advantages to washing out a joint with dual portals. These authors from **San Diego, California (USA)** describe a medial-based portal and assessed its safety and efficacy in accessing the hip joint in children.[1] The structures at risk include the obturator nerve, medial circumflex artery and the saphenous vessel. This study utilises previously obtained magnetic resonance imaging (MRI) of a paediatric population to determine the safety of a medial portal placement. A retrospective review was performed of 47 children below the age of seven years with a diagnosis of septic arthritis. The safest insertion position of the portal was posterior to the adductor longus, with insertion at the convergence of the gluteal and inguinal creases at the posteromedial location behind adductor longus. MRI images were then used to define the base of a cone, which would reflect the possible variation in the trajectory of the needle being placed