INFORMATION FOR
VETERINARY SURGEONS

SMART SURGERY
TECHNIQUE FOR
SURGICAL TUMOUR
REMOVAL OR REDUCTION
These sarcoids have been removed surgically without the use of SMART SURGERY. Recurrences along the line of the incision can arise from residual root (margin inadequate) or from seeding. The features of seeding are easily distinguished from residual root recurrence.

- Tumour seeding is a common cause of failure in surgical tumour excision.

- Smart surgery is simply surgery that upholds the principle of minimal tumour cell contamination. The technique limits or prevents tumour seeding into the operative site.

- The basic principles are focussed on controlling the introduction of tumour cells back into the site, whether derived from exposed / ulcerated tumour surfaces or from the cut margins of the tumour.
• It is essential that the surgeon shows exceptional awareness of the potential sources of tumour cells and controls these, and understands the need to obtain a suitable safe margin. Margins have to be considered in the context of the location and the need for primary wound closure.

Margin aims for sarcoid removal by surgical means (including laser):
  - 0.5 cm → 15-20% chance of success
  - 1.0 cm → 30–40% chance of success
  - 1.5 cm → 50–60% chance of success
  - 2.5 cm → 75% chance of success
  - 10 cm → 90% chance of success

1. Clip hair carefully and demarcate the line of your excision with a permanent tissue marker pen. This should include a minimum of 1 – 1.5 cm margin.
2. Prepare aseptically.
3. Before making any incision, cover the lesion using a swab or A GLOVE and bandages such as VETWRAP and clamp it over the mass with Allis forceps.
4. Lift the mass using the Allis forceps. This should bring the two marked edges close together below the covered and protected sarcoid lesion.
5. Using a straight cutting suture needle & PDS or nylon suture material, place as many horizontal mattress sutures as you need beneath the marked line – keep them very parallel and accurate. This will in effect close the incision before you make it! Do not tighten the sutures too tight; firm is good, but the knot must be knotted tightly.
6. Place a large haemostat just above the marked line so that the bottom side of the clamp lies along the line. The line should now be lying between the line of horizontal mattress sutures (on body side and the clamp (on tumour side)).
7. Use a scalpel, diathermy or laser (preferably laser!) and incise along the base of the clamp – this should coincide with the marked line. Try to avoid deviating.
8. DO NOT swab or wipe the incision line.
9. REMOVE the tumour enclosed in its swab/ glove or bandage wrapping and the Allis forceps.
10. Change your gloves, instruments and drapes (NEVER AVOID THIS STEP AS ALL ITEMS COULD BE CONTAMINATED).
11. Use diathermy or ligation to control bleeding vessels, and close the site with interrupted simple sutures or staples along the length.
12. Apply a really firm stent to the site, preferably using a hydrogel over the actual wound.
13. Do not remove the stent for 7 days unless it is contaminated or comes loose, and do not remove the sutures for at least 14; remove the nylon sutures and the staples at least 3-4 days after removing the stent.
14. Check the wound site at 4-week intervals afterwards and be ready to treat any recurrence by topical means!
Advantages of this technique

- Smart surgery is not complicated, but it does take operator discipline.
- Useful where there is enough skin to get meaningful margins. It is much more difficult if there is no ‘spare’ skin and the technique can then be challenging.
- The lift and close method means the wound stays small & closed throughout; there is no gaping wound. The tension is taken up prior to incision.
- There is no need to swab or wipe during the incision which reduces the risk of tumour seeding significantly.
- It will minimise contamination by the sarcoid’s root. Where the root is wider than 1.5 cm then seeding will occur when roots are cut. However even in this situation the smart surgery will at least minimise the risk.

EMERGENCY CONTACT INFORMATION

Professor Derek Knottenbelt
Email: knotty@equinesarcoid.co.uk

Sarcoid Technicians
Tel: 01786 236380
Email: office@equinesarcoid.co.uk