The use of honey in the treatment of complicated wounds in patients with head and neck tumours.

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The treatment of head and neck tumours (HNT) in advanced stages involves aggressive treatment plans: extensive and mutilating surgery, radio- and/or chemotherapy. The patients suffering from this type of cancer frequently have significant comorbidities, which makes them more likely vulnerable to complications. The most serious surgical complications include wound dehiscence/infection and pharyngo-cutaneous fistulae. These complications occur more frequent and are more severe in patients undergoing irradiation prior to surgery.

The standard treatment method involves antibiotics and prolonged daily dressings. In case this treatment fails, complicated surgery has to be carried out, with the interposition of skin grafts, which increases costs, morbidity and length of hospitalisation. Topical treatments which are more effective and have the objective of avoiding invasive procedures are objects of study. Very positive results have been described for the use of products containing honey in the treatment of dehiscence of surgical wounds in patients with HNT.

Objective
Analyse clinical outcomes and toxic relation between the use of honey in the treatment of dehiscence of surgical wounds in patients with HNT.

Materials and Methods
Prospective study of patients with HNT and dehiscence of surgical wounds, treated in our hospital between June 2011 and February 2012, and subject to daily dressings with honey ointment (L-Mesitran®, Triticum). Treatment of Complications operative wounds

Initial treatment: systemic antibiotics (cefazolin 1 g and clindamycin 600mg iv 8/8h) and local standard treatment (mechanical debridement and daily dressings with silver - Atrauman® Ag).

After failure of the treatment: honey (start after 16.7 days on average, +/- 9.2) -> daily cleaning with saline + L-Mesitran® and a layer of absorbent hydro fiber dressing (Aquacel®, ConvaTec ). Application of honey without pain. Disappearance of foul odors in 3 days.

Granulation and re-epithelisation
Average 5-7 days after initiation of treatment with the honey.

Woundhealing
On average 40 days after start of treatment with honey (day 5-66 ± 12.5). None of the patient needed revision surgery. No adverse effects.

Discussion
Honey is a viscous solution supersaturated sugar and derived from nectar gathered by bees (Apis mellifera). It consists of 30 % glucose, 40 % fructose, 5 % sucrose and 20 % of water, including amino acids, vitamins, salts, minerals and enzymes. Its use in the treatment of wounds is ancient, but recent studies have demonstrated its qualities: anti-inflammatory action (reduction of edema and exudates), antibacterial activity (activity against S. aureus, E. coli and Pseudomonas) debriding action (elimination of necrosis), fibroblasts stimulation action. 1-11

With our patients the honey dressings proved to be efficient and superior to previous topical treatments. The honey dressings stimulated tissue regeneration and healed wounds in less than 2 months without adverse effects or the need for revision surgery or skin grafts.

Conclusion
In our experience, the use of honey in the treatment of complicated wounds proves to be an inexpensive, efficient and non-invasive treatment for patients with ‘head and neck’ tumours who develop this kind of complication.