be performed by using the needles Stimuplex A (G22) – 50mm, Stimuplex D (G23), appropriate for reaching foramen ovale.

We know the cases of application of nerves stimulator in general surgery, for extremities blockades (M. Lange, A. Gluz, R. Weese, 2004). Only one reference was found on use of nerves stimulator in maxillo-facial surgery (A. Pulcini, M. D. J.-P. Guerin, 2007), but no procedure was developed so far, describing application of said tool in maxillo-facial surgery.

Numerous localization landmarks need further study, analysis and development. At the moment the following parameters have not been defined: range of current strength of nerve stimulator operating at maxillo-facial area, as well as clinical and anatomical landmarks of correct localization of nerve.

In order to increase efficiency of blockades at foramen ovale we applied peripheral nerves stimulator Stimuplex DIG RC from B.Braun Company in 12 cases (patients).

Nerves stimulator has two electrodes: anode and cathode. Anode is a skin electrode. Cathode is connected to the needle Stimuplex. Operating current strength is 1-1.5mA. After having introduced the needle we move towards mandibular nerve. As the needle approaches the nerve, main signs of nerve vicinity (in our opinion) appear, i.e.: frequent contractions of tissues of lower lip and chin, not disappearing at current strength of 0.3-0.5mA.

In absence of inflammatory contracture of mastication muscles, except for contraction of lower lip muscles, rhythmic oscillation of lower jaw in vertical direction occurs. Afterwards aspiration test must be done and 2.0-2.5ml of anesthetic drug must be administered. Muscle contractions cease after administration of anesthetic drug. Total anesthesia will be achieved in 5-10 minutes.

Conclusion. Application of peripheral nerves stimulator Stimuplex DIG RC and needles Stimuplex A (G22) – 50mm, Stimuplex D (G23) results in increase of cases of successful anesthesia.

OPTIMIZATION OF TREATMENT OF SUPERFICIAL DERMAL BURNS IN HEAD AND NECK AREA

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Face and neck burns are characterized by significant severity and complicated clinical course, variety of associated/combined injuries, high percentage of functional and esthetical damage/lesions. Majority of in-patient hospital cases (80%) and all patients of out-patient department, reporting head and neck burns, usually have superficial lesions. There is a progress in treatment of superficial dermal burns, however functional and esthetical outcome in many cases may not be considered satisfactory. Inflammatory process, inevitably affecting burned wounds within commonly used therapy techniques results in formation of gross fibrous layer, expanding proportionally to the duration of wound healing period, and subsequently forming a scar. As a result we have heavy vicious cicatrices, deformities, hypertrophic scars. Thus, the management of superficial dermal burns in head and neck areas requires special attention of researchers and medical specialists.

Generally accepted treatment techniques of superficial dermal burns are the following: spontaneous necrosis rejection, protracted period of wound cleansing, formation of granulations and their spontaneous epithelization. Such treatment, awaiting for spontaneous rejection of wound necrosis and involving step-by-step necrectomy, did not prove to be efficient enough due to protracted period of healing, resulting in generalization of infection, wound dystrophy, formation of gross fibrous layer, with subsequent development of visible deforming scars. In order to optimize superficial dermal burns management in head and neck areas we propose the procedure from the place of accident and injury to the wound management at specialized hospital unit with the fallowing steps:

- immediate cooling with water of burn wounds in head and neck areas, at the place of accident and injury; such cooling shall last until pain relief is achieved, in order to prevent wound deepening;

- appropriate, in terms of volume and medical substances content, infusion-transfusion therapy at hospital units;

- pre-operational treatment of burn wounds of head and neck areas in moist chamber conditions, created by application of stretch type PVC film;

- early surgical necrectomy (2^{nd} or 3^{rd} day after injury), with application of frozen-dried dermal xenograft.

The purpose of our study was to investigate outcome of treatment of superficial dermal burns in head and neck regions by described procedure.

Materials and methods:

Target group included 49 patients, treated according to above procedure. They underwent early surgical necrectomy on the 2^{nd} or 3^{rd} day after injury with single-stage wound closing by frozen-dried dermal xenograft. Control group included 26 patients, treated according to the generally accepted procedure. Both groups were identical as to the age, depth and surface of lesions. The following parameters were analyzed for the purposes of this study: patients' general conditions, average treatment period, therapy outcome in terms of esthetical and functional indices.

General conditions of target group patients after surgical removal of necrotic tissues were much better compared to the other group's members. Target group patients had higher activity, better appetite and sleep, their fever ceased earlier, along with the signs of intoxication. Average wound epithelization period lasted 14,0 ± 1,3 (hospital) days.

In control group patients spontaneous rejection of burn wound necrosis occurred in average on the 12^{th}-14^{th} day. During necrosis sequestration period patients were flaccid, had no appetite but sleep disturbances, fever (up to 39.0°C), high intoxication level, leukocytosis with blood formula shifted leftward. Intoxication signs were significantly decreasing only after necrosis rejection from wound. Average wound epithelization period in control group lasted 21,8 ± 2,7 (hospital) days.

Esthetically and functionally the patients from target group displayed significantly better results compared to the patients from control group.

Thus, immediate cooling of burn wounds, burns therapy in the conditions of moist chamber, early surgical removal of burn necrosis, followed by single-stage postoperative wound closing with frozen-dried dermal xenograft prevented development of granulation tissue, septic complications, reduced treatment period by 1.6 times, giving significantly better results in terms of esthetical and functional outcome.

This method could be recommended for implementing in medical practices.