

laser for plastic surgery uses. *Acta Chir. Plast. (Prague)* 28: 1, 1986.

Skin damage resulting from exposure to laser rays depends on the energy and duration of the flesh on skin pigmentation and on the wavelength of the radiation. It is manifested as a burn of various degree. The exposed site is sharply delineated from intact tissue. Following a thorough review of literary data on the use of laser in plastic surgery, the authors draw the following conclusions, stressing the advantages of the laser scalpel compared with other techniques.

The laser produces a well-delineated incision, with fine edges requiring no direct cutting tool contact with the tissue surface. Capillary bleeding is totally suppressed, and arterial bleeding can be arrested by repeated coagulation using the laser ray. Wound healing is not impaired compared to conventionally created wounds. Sterility of the incision is absolute. Wound resistance to secondary infection is poorer only in cases of massive inoculation of the fresh wounds. In infected wounds, the laser exhibits a sterilizing effect. In summary, carbon dioxide laser can be put to the same uses as the conventional scalpel with many advantages over the latter, but also some specific shortcomings of technical rather than that of a medical nature.

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WOUND HEALING

Chai, Ben-fu Ultrastructural investigation of experimental nonunion of fractures: Transmission of electron microscopic study. *Chin. Med. J.* 99: 207, 1986.

In the course of development of nonunion from excision of a 6 cm osteoperiosteal segment of the rabbit radius, there emerged abnormalities on the part of the cellular activities. The osteoprogenitor cells persisted for a much longer period. The macrophages increased in number, persisted longer, and were immature. The fibroblasts became elongated like fibrocytes, were haphazardly arrayed, and showed emptying of the cytoplasm. The osteoblasts assumed olive or spindle configuration and showed vacuolization. Several vacuolized osteoblasts could be besieged in a single lacuna and eventually disintegrate. Chondrocytes revealed unusually high activities. The osteoblasts appeared early, increased in number, and many were immature. In the marrow cavities, there were special flap structures to block the healing between the two fragments.

Khoo Boo-Chai

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Eisenberg, M. Effect of occlusive dressings on reepithelializations of wounds in children with epidermolysis bullosa. *J. Pediatr. Surg.* 21: 892, 1986.

Children with recessive dystrophic epidermolysis bullosa may get superficial ulcers or erosions over any part of their body in response to trivial trauma. These lesions become reepithelialized by a dystrophic epidermis that is fragile and readily reblisters. It has been well established in human and animal studies that an occlusive plastic dressing will increase the rate of superficial wound reepithelialization by its ability to prevent dessication of the wound bed. The aim of this study was to investigate the effect of occlusive and nonocclu-

sive dressings on epidermal resurfacing and dermal fibrosis of wounds in a group of children with epidermolysis bullosa.

George Manstein

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Rao, T. V., and Rao, B. R. Synthetic and biological dressings in open wounds. *Indian J. Surg.* 48: 217, 1986.

Twenty-five albino rabbits with multiple open wounds were treated with a variety of dressing materials and their effects were noted. Adherence, durability, bacteriostatic activity, and immunological reactions were studied. Quantitative measurements of adherence have demonstrated that biological dressings had a better adherence than the synthetic skin substitutes.

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NEOPLASMS

Benign

Loftus, M. J., et al. Osteochondroma of the mandibular condyles. *Oral Surg.* 61: 221, 1986.

Osteochondroma, also known as osteocartilaginous exostosis is one of the most common benign tumors of the axial skeleton. An osteochondroma of the facial skeleton is a rare occurrence, although the authors present three cases. The tumors are usually slow growing, and symptoms develop over a long period of time. The most common presentation of the condylar osteochondroma consists of a changing occlusion, the development of facial asymmetry, and a posterior apertognathia on the affected side.

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Malignant

Briggs, J. C., et al. Experience of thin cutaneous melanomas (<0.76 mm and <0.85 mm thick) in a large plastic surgery unit. *Br. J. Plast. Surg.* 37: 501, 1984.

The detailed histological findings of 727 melanoma patients treated at Frenchay Hospital during the period 1967 to 1978 have been fully reviewed and analyzed. Of these, 75 patients with lesions less than 0.76 mm thick and 15 with lesions less than 0.75 mm and less than 0.86 mm thick have been identified using a computerized data base. The general practitioners of all the patients in the series have been approached and the clinical histories found in nearly every case (69 of 75, and 15 of 15), thus providing a follow-up period of 5 to 17 years.

Eight fatalities occurred in these two groups. The histopathological features have been related to the known prognosis in an attempt to characterize the lethal lesions. No statistically significant relationship could be found between prognosis and any histological feature, including specifically the amount of regression with the lesion. However, it was found that assessment of the ratio of the uninvolved dermis