

laboratory tests. The hepatocellular necrosis was best related to mitochondrial changes consisting of clumping, enlargement, bizarre forms, abnormal cristae, and degeneration. These changes seem to represent Mallory's alcoholic hyaline. Jaundice, especially with cholestasis, was best related to the presence of larger than normal vacuoles filled with granular material or with a component of bile and to dilatation of bile canaliculi with shortening and loss of their microvilli. Intracellular fat appeared to reduce the amount of cellular organelles while extracellular fat elicited a macrophage response. The mechanism responsible for the jaundice, the cause of the mitochondrial changes, and the substance responsible for the leukocytic inflammatory reaction remain to be elucidated.

-- Authors' summary

- 214 Aetiology and Pathology of Beat Knee. W. J. W. Sharrard.
Brit. J. Ind. Med. 20, 24-31 (Jan. 1963).

The object of this study was to determine the mechanism of the production of beat knee and its relation to pathological findings. A clinical study was made among 598 coal face workers at one large colliery; 579 were examined of whom 233 showed evidence of past or present beat knee. A considerable preponderance of non-inflammatory lesions, most commonly in the prepatellar bursa, was demonstrated. It was concluded that the single common factor in the causation of non-inflammatory or acute recurrent bursitis was the trauma of kneeling. Experimental investigation of the pressures exerted showed great variations in the pressure on the knee as a whole and on different parts of its weight-bearing surfaces. The view that these localized and extreme variations in pressure may lead to rupture of a vessel found confirmation in the aspiration of blood from the bursae of 29 out of 30 patients. Histological sections from chronically enlarged bursae showed intense fibrosis in the wall of the bursa and sometimes deposition of hemosiderin. In the management of a new case of acute simple bursitis, immediate aspiration of the blood and the instillation of hyalase proved successful in all 12 cases. Aspiration was also successful in certain cases of acute recurrent simple bursitis. Surgical removal of chronically enlarged fibrotic bursae allowed 8 out of 12 patients to return to the coal face. It is suggested that in order to reduce the incidence of beat knee, the use of a knee pad that will not only protect the skin of the front of the knee from trauma by coal particles but will also cushion the knee from the effects of extreme variations in pressure may be desirable.

-- Author's abst.

- 215 Occlusive Arterial Disease in the Hand due to Occupational Trauma. I. J. Schatz.
New Engl. J. Med. 268, 281-284 (Feb. 7, 1963).

Ten cases of ischemia of the digits due to occupational trauma are discussed. The predominant presenting symptoms were rest pain, Raynaud's phenomenon and skin ulceration. Other causes of occlusive arterial disease in the hand were excluded. Angiography was necessary in some cases to confirm the diagnosis for purposes of workmen's compensation. Treatment consisted of the avoidance of further trauma, abstinence from tobacco and local care of the hands; sympathectomy was performed in 5 patients to promote healing of ulceration. Because 8 of these patients were seen within 10 months, it is suggested that this syndrome is an important, if often overlooked cause of industrial disability.

-- Author's summary

- 216 The Management of Corneal Lesions Following Trauma. W. B. Clark.
Ind. Med. & Surg. 32, 47-52 (Feb. 1963).

Some of the numerous forms of trauma to the cornea, from both mechanical agents and chemicals, have been described together with appropriate management and treatment in some instances. Some emphasis has been directed to the singular damage from bee stings on the eyelid in which the stinger eventually damages the cornea. Likewise, some emphasis has been accorded a new form of treatment of herpetic keratitis ulcers by the intramuscular injection of Sander's toxoid. This neurotropic toxoid, prepared from the venom of the South African cobra and the South American rattlesnake, led to results that were demonstrably favorable in 150 cases, but at this time the nature of the action of this toxoid is not established.

-- Author's summary

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