

"complicated," when there is also injury to important structures, *i.e.*, nerves, vessels, joints, viscera, &c. Of incomplete fractures there is the "green-stick" fracture, which only occurs in young children, and most often in those that are rickety. The bone is partially bent and partially broken, the fracture comprising the convexity of the curve, whilst the concave half is bent. "Depression" of the skull may be incomplete, whilst "fissured" fractures are frequently only partial. Spontaneous fractures, in which the determining force is barely, if at all, recognisable, are due to morbid conditions of the bones, either local or general, *i.e.*, sarcoma, osteo-malacia, &c., and also occur in patients afflicted with certain mental or nervous diseases. Separated epiphysis, a lesion occurring in patients under the age of twenty, is usually classified with fractures, since it demands similar treatment.

Complications.—Shock: This varies in intensity from slight faintness to immediate and complete prostration, insensibility, and even death, according to the severity of the injuries inflicted, the site of the wound, and age and sex. Delayed shock frequently occurs in cases of gunshot wounds.

Aseptic traumatic fever: This is supposed to be due to absorption of fibrin ferment taking place. It may, however, be due to some irritation, as of a badly fitting splint, and disappears on removal.

Septic traumatic fever: This is caused by absorption of toxins.

Delirium: This occurs in varying degrees. There may be active delirium, traumatic delirium, nervous traumatic delirium, and delirium tremens.

Hypostatic pneumonia: This may occur in fracture of ribs, and is likely to ensue in elderly patients, where the injury necessitates the recumbent position, as in fractured femur. As the patient is usually allowed to get up at an early date in the endeavour to prevent this complication, non-union of the fracture often results.

Bedsore: These are due to pressure and the general condition of the patient, but may be avoided in the majority of cases by careful and skilful nursing treatment.

Crutch palsy: This is the result of compression, and may affect all the nerves of the upper extremity.

Volkman's ischæmic contraction: This sometimes follows on fractures of the forearm and lower end of humerus. The fingers become flexed and clawed, and there is hyper-extension of the wrist. It is said to be due to splint pressure, but cases are recorded where no splints have been employed.

Gangrene: This may be the immediate effect of injury; it may, however, be the result of a too tightly applied bandage, or the subsequent swelling of a limb after the application of the bandage, or the result of localised pressure of a splint which has been insufficiently padded.

Acute emphysematous gangrene: This may occur in compound fracture.

The chief complications of compound fractures are hæmorrhage, injury from fragments, and sepsis. Sepsis may be local or general, *i.e.*, tetanus, pyæmia, septicæmia, &c.

There are also complications which arise only in association with certain fractures. To name but a few, there is traumatic arthritis associated with complicated fracture involving the joint, extravasation of urine with pelvic fractures, septic cystitis with fracture of the spine, traumatic epilepsy or insanity with simple depressed fracture of the vault of the cranium, and septic osteitis and suppurative meningitis with compound depressed fracture of the skull.

HONOURABLE MENTION.

The following competitors receive honourable mention:—Miss H. W. Sutherland, Miss S. Simpson, Miss A. M. Owen, Miss A. Phillips, Miss A. McClure, Miss E. M. Streeter, Miss Dorothy Humphreys, Miss C. De M. Fraser, Miss D. Vine, Miss E. J. Shepherd, Miss G. Nash, Miss M. Rowntree, Miss E. A. Sorrie, Miss F. Sheppard, Miss H. Ballard, Miss H. M. Thirlby.

Miss H. W. Sutherland writes:—"Indirect violence is the most common cause of fracture. The bone, or a series of bones, exposed to violence gives way at its weakest point, though not in the immediate neighbourhood of the injury. Sudden contraction of the muscles of the leg to prevent a fall occasionally causes fracture of the patella."

QUESTION FOR NEXT WEEK.

Describe fully what help in diagnosis can be obtained from (a) the colour of a patient's face, (b) expression, (c) the eyes, (d) position assumed.

AUXILIARY HOSPITALS.

WAR OFFICE ANNOUNCEMENT.

The War Office announces that, owing to the establishment on a large scale of Military Hospitals, both for sick and wounded soldiers and for convalescents, it is not proposed to accept any further offers of private houses for auxiliary hospitals or convalescent homes.

We heartily congratulate the War Office on this decision, which is no doubt the result of the investigations which have recently been made into the management of these hospitals.

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