## OUR PRIZE COMPETITION.

WHAT ARE THE PRINCIPAL RESULTS OF INJURIES TO THE SPINE? IN WHAT CLASSES OF CASES ARE OPERATIONS PERFORMED? HOW WOULD YOU NURSE SUCH A CASE AFTER OPERATION?

We have pleasure in awarding the prize this week to Miss Elizabeth Burrodale, 50, Chatham Street, Edgeley, Stockport.

## PRIZE PAPER.

The principal results of injuries to the spine are :---

(1) Compression of, or tearing of, or cutting through, the spinal cord.

(2) Loss of sensation below the seat of injury.

(3) A girdle of pain due to irritated nerve endings just above the seat of injury.

(4) Partial or complete paralysis below the seat of injury.

(5) Paralysis of sphincters, causing incontinence of urine and fæces, sometimes retention, with overflow and constipation, from paralysis of mesenteric and vescical nerves.

(6) Bedsores, from lack of nutrition to the parts and from pressure

Secondary results are :---

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(1) Spinal concussion, causing immediate and varying paraplegia and shock, and absence of reflexes.

(2) Spinal hæmorrhage, which may be either inside or outside the cord, causing irritation and pain.

(3) Spinal meningitis (hyperæsthesia, spasm, and paralysis).

(4) Spinal myelitis. The structure of the cord may be destroyed.

(5) Spinal neurasthenia, with pain in the back, inability for mental or physical effort, and hyperæsthesia.

Operations are usually performed in those cases in which—

(1) The deep reflexes are present, indicating that the lesion is not a complete one.

(2) In those cases in which the cauda equina is injured.

(3) In cases of a depressed fracture of a neural arch.

(4) When paraplegia arises after an interval, from the presence of blood, or inflammatory exudation, cicatrices, or callus.

In nursing such a case after operation two courses might be pursued.

(1) If the operation were performed soon after the injury occurred and the body was in good condition, no tendency to bedsores being apparent, the patient might be nursed in the recumbent position on a firm, hard mattress under which fracture boards had been placed.

A section bed would be preferable, so that the portion under the buttocks could be gently withdrawn when the bedpan was required; failing that, the bowels could be relieved on a very large pad of non-absorbent wool.

If retention with overflow is present, a urinal should be fixed in position, and should be carefully padded round the rim to prevent soreness arising from pressure.

The bowels must be kept loose by aperients or enemata.

The bladder, if there is retention, must be emptied at regular intervals of six or at most eight hours, strict aseptic precautions being observed.

The diet should be liquid until after the first evacuation of the bowels, which will probably be on the third day after operation. Afterwards it should consist of light, nourishing, and easily digestible food.

A close watch must be kept for any sign of bedsores, and if any indication occurs in the region of the sacrum, the patient should be immediately placed upon a water bed.

The heels and ankles can be protected from pressure by rings made of non-absorbent wool or teased out tow, wrapped lightly round with bandages.

Where paraplegia exists there will be a tendency to foot-drop, and the feet should be supported by sandbags and protected from the weight of the bedclothes by a cage, care being taken, however, to keep the limbs warm by means of a soft, light inner blanket.

Those parts liable to bedsores should be frequently washed, gently massaged, treated with methylated spirit, eau de Cologne, or brandy, to toughen the skin, afterwards using olive oil, or castor oil and zinc ointment in the region of the buttocks to protect the skin from any dampness which may occur.

(2) If the patient has been suffering from the injury for some time previous to the operation, and there is immediate fear of bedsores, he should be placed upon a water bed at once.

The nurse should be very careful not to lean upon the bed or in any way disturb its level when attending to the patient, the great point being to keep the spine absolutely straight and still.

Otherwise the treatment would be as previously described.

## HONOURABLE MENTION.

The following competitors receive honourable mention :---Miss M. E. Thorpe, Miss



