Traumatic Brachial Plexus Injuries: Epidemiological Study at Two Egyptian Centers Over 2 Years



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Introduction

Improving the knowledge about the epidemiology of the traumatic brachial plexus injuries (BPI) helps in providing an appropriate assessment and management of these cases. This issue is important especially in those injuries that have much burden on the individual and national income.

Methods

Eighteen patients who had traumatic brachial plexus injuries were operated upon by our team from January 2014 to December 2015 in Damanhour Medical National Institute and Suez Canal University hospitals. The retrospective analysis reviewed the age, sex, mode of trauma, pattern of injury, level of injury, associated injuries, time interval between trauma and surgical intervention, type of the surgical procedure, transferred nerves, grafted nerves, functional outcome and the period of follow up. The regular follow up each 3 months is the rule for most of the patients and the data sheet is updated. We lost contact with one of our operated patients as he changed his address. Functional motor power recovery is assessed by using the scale of Medical Research Council (MRC).[6]

Results

All the patients were males with mean age 31 years, seventy two percent encountered road traffic accidents (RTA), and ninety percent were because of motorbike accidents. Sixty percent showed upper BPI. Neurolysis, nerve grafting and nerve transfer were the surgical procedures that were followed. Functional recovery had been achieved in about sixty percent of the study population.

Conclusions

Our study gives insight into epidemiological aspects of the BPI in Egypt and the role of our new center in the management of those injuries. Taking into consideration the small number of the study population, the results were shown to be similar to the worldwide acknowledged percentages.

Learning Objectives

learning the different surgical approaches and options in the management of the brachial plexus injuries

References

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figure 4



intraoperative picture showing the opening while proceeding in the brachial plexus surgery using the contralateral C7 nerve transfer

figure 5



intraoperative picture showing using the Obrelin technique in the brachial plexus surgery for restoring elbow flexion