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10.4103/joas.joas_23_18

Brachial plexus injury: Following birthday bumps

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Abstract:

Fractures and blunt Injuries following birthday bumps are reported in literature, but to the best of our knowledge, brachial plexus injuries following birthday bumps have not been. Reported is one such case which was managed conservatively. The neuro deficit recovered completely over the course of time. Teenagers especially college and hostel students may hide the mechanism of injury, and it may distract the physician from arriving at proper diagnosis. To avoid similar injuries in future, it needs counseling and proper adolescence care.

Keywords:

Avulsion, birthday bumps, brachial plexus

Introduction

Brachial plexus injury following difficult delivery (Incidence varies between 0.15 and 3/1000 live births)^[1] and Road traffic accident is well known.^[2] Fractures and blunt Injuries following birthday bumps are reported in literature. However, to the best of our knowledge, brachial plexus injuries following the birthday bump has not been. The various anatomical presentations [Figure 1] after injury are avulsion, rupture, neuroma, or compression (neuropraxia).^[3,4] The prognosis for recovery from neuropraxia is efficient and quick. Recovery begins within 2–3 weeks after the injury occurs, and it is complete within 6–8 weeks.^[5]

Case Report

A 14-year-old male patient brought by parents in outpatient department with complaints of weakness along the left shoulder joint, prominent scapula and shooting pain, numbness along the shoulder and the arm along the C5, C6, and C7 distribution, next day after the onset of symptoms. The mechanism of injury was

unknown to parents; initially, the patient hid the mechanism of injury. After assurance, the patient gave a history of beatings as birthday bumps around the back and shoulder joints.

Clinical examination revealed bruises along the shoulder, painful and restricted neck movements and deficit along the C5, C6, and C7 roots. There was winging of scapula [Figure 2], biceps weakness (power: 3/5), axillary nerve deficit (power: 0/5). Tinel's sign was positive initially, no progression of stimulation point over the time.

X-ray showed no bony abnormality, minimal soft-tissue edema. Plane magnetic resonance imaging [Figures 3 and 4] showed edema along the brachial plexus with no anatomical discontinuity.

Medically managed with short-term steroids (Dexamethasone 8 mg thrice daily for 7 days), nonsteroidal anti-inflammatory drugs (Naproxen 250 mg twice daily for 3 weeks), Pregabalin (75 mg twice daily for 2 weeks followed by once daily for the next 2 weeks), and Methylcobalamin (1500 mcg per day for 4 weeks). Immobilization with arm sling (ideally being the aeroplane splint for relaxation of the injured structures and prevention of

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How to cite this article: Mohammed JM, Hussain MW, Mirza U. Brachial plexus injury: Following birthday bumps. J Orthop Allied Sci 2018;6:86-8.

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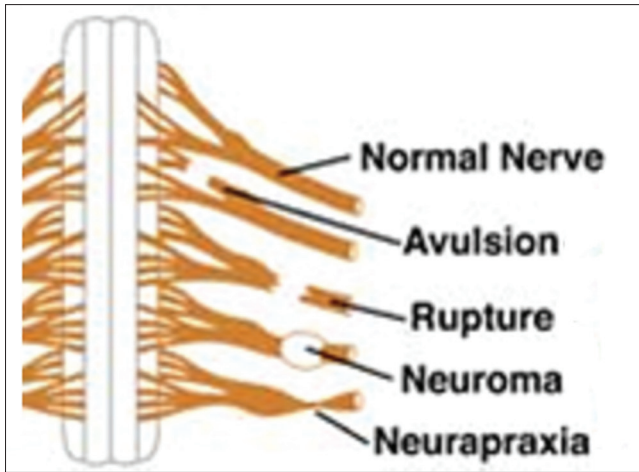


Figure 1: Various brachial plexus injuries



Figure 2: Winging scapula

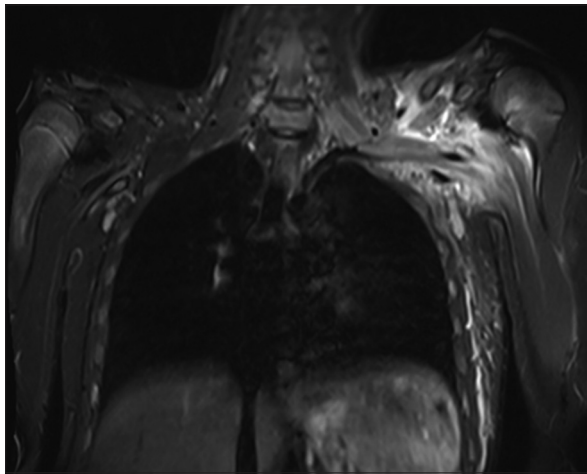


Figure 3: Magnetic resonance imaging - Coronal image

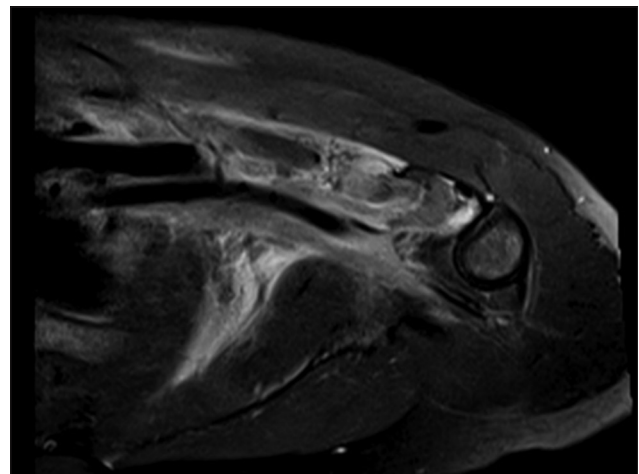


Figure 4: Magnetic resonance imaging - Sagittal image

contracture) done for 6 weeks, as it was easily available and the patient can attend school easily. Pain and swelling subsided after 3 days. The sensory deficits recovered after 3 weeks and motor deficit returned after 8 weeks. He was kept on physiotherapy with biceps strengthening exercises, shoulder range of movement, and abductor strengthening exercises for 6 weeks.

The patient recovered completely without any sequelae following 3 months after injury.

Discussion

"The bumps," a birthday torment involves the friends and family of the person whose birthday it is taking, by the arms and legs, and "bumping" up into the air and down onto the floor. The number of "bumps" given equals the age of the person in years plus one "for luck."^[6]

Physical and psychological trauma, various blunt injuries, and fracture have been repeatedly noticed due to it, Brachial plexus injury following birthday

bumps has not been reported yet in literature. The common causes of the brachial plexus injury are birth injuries, clavicle fractures, shoulder dislocation, and other injuries around shoulder in road traffic accidents. Brachial plexus injuries 90% of the times are self-limiting with complete recovery.

Due to the pressure from family and higher authorities in schools and hostels the mechanism of injury, most of the time is concealed and attributed to accidental trauma. This distracts the physician from arriving at proper diagnosis when clinical signs are not obvious, or the clinical examination is not collaborating with the history given by the patients. This is only the tip of the iceberg in present-day life; we need to be ready with various accidental presentations in the name of selfie, stunts, or games (e.g., being the blue whale).^[7] which make adolescents exposed to the high risk of unexpected trauma.

College and hostel students must be counseled about the pros and cons of the various social evils so that similar

injuries are avoided in future. There is a dire need of framing laws against practicing and publicizing such social evils by social media.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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