

EPIDEMIOLOGY OF PAEDIATRIC TRAUMA DURING NATIONAL LOCKDOWN: LESSONS FOR THE FUTURE. A RETROSPECTIVE STUDY WITH 12 MONTHS FOLLOW-UP

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Abstract

Introduction: National lockdown was implemented to slow down the COVID-19 outbreak. This paper aims to compare the epidemiology of paediatric orthopaedic trauma presentation, management and outcomes during the lockdown period with the matched pre-pandemic period in 2019. **Methods:** This was a retrospective cohort study. All patients aged 0 - 18 years who required trauma unit management during the school closure period (18 March – 25 May 2020) were included. Cases for the matched period in 2019 were analysed for comparison. Patient demographics, mechanism and anatomic location of injury, management, and follow-up were assessed. **Results:** 286 and 575 injuries were observed in 2020 and 2019, respectively. In 2020, we observed a 50.3% fall in paediatric trauma presentation. There was a significant reduction in the average age at presentation by more than one year ($p < 0.001$). Sports-related injuries decreased significantly ($n=16$ 5.6% vs $n=127$ 22.1%; $p<0.001$). Proportion of ride on injuries increased significantly ($n=63$ 22% vs $n=61$ 10.6%; $p<0.0001$). Non-accidental injury concerns rose significantly ($n=9$ 3.1% vs $n=4$ 0.7%; $p=0.01$). There was a proportional increase in upper limb injuries (64.3% vs 58.4%) and proportional reduction in lower limb injuries (32.1% vs 35.5%). Use of conservative management increased. Telephone follow-up rose significantly (23% vs 6%; $p < 0.001$). Re-presentation rate increased significantly (1.4% vs 0.2%; $p = 0.04$). **Conclusion:** There was a reduction in paediatric trauma presentation and the average age at presentation during lockdown. This change was accompanied by a shift in mechanism and anatomic location of injury, management, and follow-up.

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