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Prolonged Ileus in Traumatic Pelvic Ring Injury Patients Who Underwent Arterial Angio-Embolization: A Retrospective Study

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Abstract : Purpose: Paralytic ileus occurs in up to 18% of patients with pelvic bone fractures. The aim of this study is to determine if massive bleeding requiring arterial angioembolization is related to the duration of ileus in patients with traumatic pelvic ring injuries. Methods: This retrospective study included 25 patients who underwent arterial angioembolization for traumatic pelvic ring injuries. Data were collected from prospectively maintained databases of two independent hospitals. Results: Demographic characteristics (such as age, sex, body mass index, and Charlson Comorbidity Index), cause of trauma, and severity of pelvic injuries were similar in the non-prolonged and prolonged ileus groups. As expected, the prolonged ileus group had a significantly longer duration of ileus than the non-prolonged ileus group (8.0 ± 4.2 days vs. 1.2 ± 0.4 days, respectively, $P < 0.001$). The mortality rate was higher in the prolonged ileus group (20% vs. 0%), but it was not significantly different ($P = 0.13$). Interestingly, the prolonged ileus group received significantly higher amounts of packed red blood cell (PRBC) transfusions (6.1 ± 2.1 units vs. 3.8 ± 2.5 units; $P = 0.02$). The amount of PRBC transfusions was associated with a greater risk of prolonged ileus development ($P = 0.03$, OR = 2.04, 95% CI = 1.08-3.88). Conclusion: This study supports the idea that the duration of the ileus is related to the amount of bleeding caused by the traumatic pelvic ring injury. In order to prevent further complications, conservative treatments of the ileus should be considered.

Keywords : pelvic ring injury, bleeding, ileus, arterial angioembolization
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