Is fecal diversion necessary in the treatment of open pelvic fractures with rectal injuries?

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INTRODUCTION: The purpose of this study was to assess the effect of fecal diversion after open pelvic fractures with associated rectal injuries.

METHODS: A retrospective review of all open pelvic fractures was performed at 13 level 1 trauma centers over a 7-year period. Included patients were >18 years old, with an open pelvic fracture and a rectal injury and had follow-up >3 months or died from their injuries. Patients were divided into 2 groups, those who underwent fecal diversion and those who were not diverted. The primary outcomes assessed included deep infection, overall complication rates and mortality.

RESULTS: A total of 41 patients were identified for inclusion. 25 patients underwent fecal diversion and 16 were not diverted. There were no differences in age, sex, New Injury Severity Score, rate of IR embolization, or pelvic packing between the groups. There were no differences in number of debridements, manner of surgical management of anterior or posterior ring fractures, type of open fracture wound closure, or time from injury to closure. There were no differences in mortality (8% vs 6.25%) between the groups. There were no differences in overall complication rates between the groups (diversion group 56% vs 50% no diversion, p=0.87) or deep infection (32% vs 18.75%, p=0.49).

DISCUSSION AND CONCLUSION: Fecal diversion as a part of the management of open pelvic fractures with a rectal injury does not appear to affect the rate of mortality, deep infection, or overall complication rates. We recommend a multidisciplinary approach in the management of these patients in order to avoid pelvic sepsis.