

## INTISARI

**Latar Belakang:** Cedera servikal merupakan salah satu trauma medula spinalis dengan angka morbiditas dan mortalitas yang tinggi, terutama di negara berkembang. Identifikasi faktor risiko sangat penting untuk strategi pencegahan, tata laksana, dan luaran pasien yang lebih baik.

**Tujuan:** Menganalisa faktor risiko cedera servikal terhadap morbiditas dan mortalitas, serta menyajikan profil demografis cedera servikal di RSUP Dr Sardjito.

**Metode:** Penelitian ini menggunakan desain *case-control* retrospektif terhadap 127 pasien dengan cedera servikal yang dirawat di RSUP Dr Sardjito Yogyakarta periode 1 Januari 2022 – 31 Desember 2024. Data dikumpulkan dari rekam medis dan dianalisis menggunakan uji bivariat (*Fisher's exact*). Nilai  $p < 0,05$  dianggap bermakna.

**Hasil:** Mayoritas pasien berjenis kelamin laki-laki (88,2%) dan berusia rata-rata 50,57 tahun. Trauma terbanyak adalah jatuh dari ketinggian (45,7%) dan kecelakaan lalu lintas (44,9%). Morbiditas berupa disabilitas berat dialami 41,7% pasien, sedangkan mortalitas mencapai 31,5%. Analisis faktor risiko terhadap morbiditas tidak menemukan variabel yang berhubungan signifikan dengan luaran klinis ( $P > 0,05$ ). Lama rawat inap (LOS) berhubungan signifikan dengan morbiditas ( $p = 0,001$ ). Faktor risiko mortalitas signifikan meliputi komorbid respirasi (OR 4,50;  $p = 0,004$ ), skor ASIA A (OR 7,21;  $p = 0,007$ ), trakeostomi (OR 4,15;  $p = 0,002$ ), dan ventilator jangka panjang (OR 6,97;  $p = 0,001$ ). Variabel lain seperti usia, jenis kelamin, pekerjaan, mekanisme kejadian, lama rawat inap (LOS), maupun cedera penyerta tidak menunjukkan perbedaan signifikan dalam kaitannya dengan mortalitas ( $P > 0,05$ ).

**Kesimpulan:** Skor ASIA A, *prolonged ventilator*, dan trakeostomi merupakan faktor risiko mortalitas cedera cervical di RSUP Dr Sardjito. Tidak ditemukannya faktor risiko yang bermakna secara statistik terkait morbiditas.

**Kata kunci:** Cedera servikal, Morbiditas, Mortalitas, Faktor risiko, Skor ASIA A

## ABSTRACT

**Background:** Cervical injury is a form of spinal cord trauma with high morbidity and mortality rates, especially in developing countries. Identifying risk factors is essential for prevention strategies, management, and improved patient outcomes.

**Objective:** To analyze risk factors of cervical injury related to morbidity and mortality, and to present the demographic profile of cervical injury cases at Dr Sardjito General Hospital.

**Methods:** This study employed a retrospective case-control design involving 127 patients with cervical injury treated at Dr Sardjito General Hospital, Yogyakarta, from January 1, 2022, to December 31, 2024. Data were collected from medical records and analyzed using bivariate analysis (Fisher's exact test). A  $p$ -value  $< 0.05$  was considered statistically significant.

**Results:** The majority of patients were male (88.2%) with an average age of 50.57 years. The most common trauma mechanisms were falls from height (45.7%) and traffic accidents (44.9%). Severe disability as morbidity was experienced by 41.7% of patients, while mortality reached 31.5%. Risk factor analysis for morbidity did not find any variables significantly associated with clinical outcomes ( $P > 0.05$ ). Length of stay (LOS) was significantly associated with morbidity ( $p = 0.001$ ). Significant risk factors for mortality included respiratory comorbidity (OR 4.50;  $p = 0.004$ ), ASIA score A (OR 7.21;  $p = 0.007$ ), tracheostomy (OR 4.15;  $p = 0.002$ ), and prolonged ventilator use (OR 6.97;  $p = 0.001$ ). Other variables such as age, gender, occupation, mechanism of injury, length of hospital stay (LOS), and associated injuries did not show significant differences in relation to mortality ( $P > 0.05$ ).

**Conclusion:** ASIA A score, prolonged ventilator use, and tracheostomy were identified as risk factors for mortality in cervical injury patients at Dr Sardjito General Hospital. No statistically significant risk factors were found to be associated with morbidity.

**Keywords:** Cervical injury, Morbidity, Mortality, Risk factors, ASIA A score