

Post-traumatic endophthalmitis after penetrating eye injuries. Risk factors, microbiological diagnosis and functional outcome.

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Abstract:

BACKGROUND: Endophthalmitis associated with penetrating injury represents a distinct kind of intraocular infection. The preceding trauma, infective agents and inflammatory changes determine the functional outcome. **MATERIALS AND METHODS:** In a retrospective study, 18 patients with endophthalmitis were investigated and compared to a control group of 54 patients with penetrating ocular trauma. A number of clinical variables were evaluated for association with an increased risk of endophthalmitis. **RESULTS:** Risk factors found to be significant were: (1) a purely corneal wound, (2) surgical primary repair more than 24 h after injury and (3) initiation of intravenous antibiotic therapy later than 24 h after trauma. A two-fold increased relative risk was related to the presence of an intraocular foreign body, lens injury and a wound length less than 5 mm. Direct inoculation of surgical specimens and immediate microbiological processing succeeded in the presumptive identification of infective agents with preliminary therapeutic recommendations in 72% of the patients. **CONCLUSIONS:** In "risk eyes" particular attention should be paid to prophylaxis and signs of infection