among clinicians, laboratory staff, and public health professionals can assist in minimizing the false diagnosis of TB.

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Effect of Granulocyte Colony-Stimulating Factor on Nosocomial Infections

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Investigators from the University of Massachusetts Medical Center in Worcester conducted studies to determine whether the use of prophylactic recombinant human granulocyte colony-stimulating factor (filgrastim) reduces the frequency of nosocomial infections in patients with either acute traumatic brain injury or cerebral hemorrhage. The study was a randomized, placebo-controlled, double-blind, multicenter phase II study. It was conducted in intensive-care units of seven medical centers.

Study patients were selected who had either acute traumatic brain injury or cerebral hemorrhage who were intubated within 6 hours of admission and who were expected to be ventilated for more than 72 hours. Patients were randomized to receive daily subcutaneous injections of placebo (n=21) or one of two doses of filgrastim (75 μg [n=20] or 300 μg [n=20]) for 10 days or until the absolute neutrophil count was >75,000 cells/mm^3 or until extubation. End points included increase in absolute neutrophil count, safety of filgrastim, and frequency of nosocomial infections (pneumonia, bacteremia, and urinary tract infection).

Filgrastim caused a dose-dependent increase in absolute neutrophil count. There were no differences in the frequency of pneumonia or urinary tract infection; however, there was a dose-dependent decrease in the frequency of bacteremias (P<.05). Adverse events were similar among the three groups. There was one case of acute respiratory distress syndrome in the placebo group.

The authors concluded that, in this patient population, use of filgrastim was safe, and the agent appeared to reduce the risk of primary bacteremias but had no beneficial effects on mortality, length of stay, or other nosocomial infections.

FROM: Heard SO, Fink MP, Gamelli RL, Solomkin JS, Joshi M, Trask AL, etc. Effect of prophylactic administration of recombinant human granulocyte colony-stimulating factor (filgrastim) on the frequency of nosocomial infections in patients with acute traumatic brain injury or cerebral hemorrhage. The Filgrastim Study Group. *Crit Care Med* 1998;26:748-754.

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