



Severe leptospirosis with pulmonary hemorrhage; The role of intravenous hydrocortisone

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Abstract:

Leptospirosis is an endemic zoonosis caused by spirochetes of the genus Leptospira that typically occurs in tropical regions. Pulmonary hemorrhage which is the frequent cause of mortality in leptospirosis is either underdiagnosed or only discovered at autopsy.

In this paper, we present a 23 year old male presenting with five days history of fever with anuria, dyspnea and hemoptysis. Leptospira IgM was positive. Chest Xray and HRCT scan showed diffuse bilateral infiltrates with pulmonary hemorrhage. Patient was treated with antibiotics, renal replacement therapy and steroids. However, methylprednisolone was unavailable thus, a high dose of hydrocortisone was used as an alternative.

Leptospirosis has an immune phase which damages the endothelium affects organs like the liver, kidneys, heart, lungs and meninges. Immunomodulation with high-dose steroids may be used. Methylprednisolone is the ideal steroid given and is proven to weaken the inflammatory response and ameliorate the adverse effect of immune mediated response. In our case, a hydrocortisone equivalent of methylprednisolone was used which was unconventional but is cheaper and more available.

Early recognition is important as administration of corticosteroid in addition to broad-spectrum antibiotics and early supportive care can lead to successful treatment, shortened hospital stays, reduction of morbidity and mortality. Thus, targeting the pulmonary involvement of leptospirosis with methylprednisolone equivalent hydrocortisone has demonstrated to be effective as evidenced by our patient's response. Hence, it can be used to treat Leptospirosis with pulmonary hemorrhage at a lesser cost which is more practical to use in areas with limited resources.



Biography:

Diana Marie San Pedro is currently taking her Internal Medicine residency training at Bicol Medical Center, She completed her college degree at the age of 20 years old from University of the Philippines where she graduated with honors. She took her medicine degree at Far Eastern University and was awarded with United States Alumni Association scholarship. She aspires to be a cardiologist in the near future.

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