

FONDAPARINUX IN PATIENT WITH ACTIVE TUBERCULOSIS.

T. Marrazzo¹, R. Parrella², A. Botta², A. Pontarelli², M. P. Ursi³, A. Karruli⁴, R. Albisinni⁵.

¹UOC Medicina Interna e dei Trapianti, Ospedale Monaldi; ²UOC Malattie infettive ad Indirizzo Respiratorio, Ospedale Cotugno Azienda dei Colli; ³UOC MECAU Ospedale CTO Azienda dei Colli; ⁴Malattie Infettive e Tropicali, Ospedale di Tirana; ⁵UOC CCH generale, Ospedale Monaldi Azienda dei Colli.

Background and aims: Tuberculosis (TB) is an infectious disease caused by *Mycobacterium tuberculosis*, an airborne-transmitted infection that primarily affects the respiratory system and potentially influences systemic physiology and remain a leading cause of morbidity and mortality worldwide particularly in low- and middle-income countries.

Thrombosis, particularly venous thromboembolism (VTE) is a notable concern in patients with active TB; epidemiological data highlights an elevated risk of VTE and in particular of deep vein thrombosis (DVT) and pulmonary embolism (PE).

The anticoagulant therapy in these patients could be very difficult to manage in particular in the long-term therapy due to interferences between warfarin and rifampin (well known from years,) but also between direct oral anticoagulants and rifampin.

pathophysiology of hypercoagulability in TB arises from multiple mechanisms including systemic inflammatory response and endothelial dysfunction.

Methods: Two patients from Africa, 20 and 22 years old, admitted for severe pulmonary tuberculosis. The first patient

developed upper limb deep vein thrombosis (DVT) and pulmonary embolism affecting the segmental branches of the left superior lobe, the other one had peritoneal involvement of infection and developed DVT in the right lower limb and thrombosis of the hypogastric vein.

Both patients are being treated with Fondaparinux, initially at a therapeutic dose (7.5 mg/24h for 7 days with antiXa level of 0.8 IU/ml), followed by 5 mg/24h (antiXa level of 0.6 IU/ml).

Results: After one month, partial recanalization of the affected vessels was observed, and no hemorrhagic complications were noted, so the recommendation was to continue the treatment for another 30 days. The infectious condition shows clinical improvement, while the radiological findings remain unchanged.

Conclusion: the anticoagulation with fondaparinux can be a valid alternative for the treatment of venous thromboembolism in patients on quadruple therapy (isoniazide, ethambutol, rifampin, pyrazinamide) for *Mycobacterium tuberculosis* infection proving to be safe and effective.

Email: tommaso.marrazzo92@gmail.com