Multidisciplinary approach to multivessel lesions in Takayasu’s arteritis: the Gaslini Institute experience

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Introduction: Takayasu arteritis (TA) is a chronic inflammatory disease affecting the large arteries and their branches; its etiology is still unknown. In individuals suffering from TA, arterial inflammation progresses to stenosis and/or occlusion, leading to organ damage and affecting survival. The disease is often unrecognized, heterogeneous in presentation, progression and response to therapy. Most patients require repeated and prolonged treatment including aortic surgery or transcatheter procedures. TA usually affects young female individuals during the second and third decades of life but it has also been reported in young children. We describe our experience of eleven young patients with TA.

Methods: we retrospectively reviewed, as per the 2010 EULAR/PRINTO/PRES criteria, a cohort of 11 Caucasian patients (pts) (9 female, 2 male) referred to our Institution with TA over the last decade. The median age of the disease onset was 13.9 years (range 5.1-21 years). The arterial lesion was classified according to Hata et al.(1996) who suggested five types of vessel damage involved.

Results: According to TA-criteria we observed angiographic abnormalities (11pts), pulse deficit or claudication (5pts), discrepancy of blood-pressure (2pts), bruits (5pts), hypertension (3pts), abnormal acute phase reactants (11pts). In particular, the angiographic abnormalities were classified according to Hata criteria as follows: type I (1pt), Type II A (3pts), Type II B (1pt), Type III (1pt), Type IV (1pt), Type V (4pts). Medical treatment included steroids (11pts), Cyclophosfamide (7pts), Methotrexate (11pts) Infliximab (9pts), Adalimumab (4pts), Azathioprine (3pts).
Surgery was required in 3 pts: kidney revascularization (2pts), ascending aorta replacement (1pt) associated with aortic arch angioplasty. Two additional artery renal percutaneous angioplasty was required for residual stenosis in one patient and for bypass failure in another patient. Seven patients are still in medical therapy, without symptoms.

Conclusions: Takayasu arteritis is a complex and rare condition requiring a multidisciplinary approach. Although medical treatment can sometimes improve the course of the condition, an invasive approach with surgery or transcatheter treatment could be required when the involvement of the major arterial system makes the patients susceptible to significant medical sequelae including stroke, hypertension, congestive heart failure, and myocardial infarction.