

A 30 Year Audit of the Vascular Complications of Ports: Permanent Intravascular Access Devices

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Abstract : Background: Cystic Fibrosis (CF) is a chronic lung disease where patients have chronic lung infection punctuated by acute exacerbations that require intermittent intravenous (IV) antibiotics during their lives. With time, peripheral venous access can become difficult and limited. Accessing these veins can become arduous, traumatic, painful and unworkable. A permanent intravascular access device or Port is a small device that is inserted into the central venous system that allows the delivery of medicine eliminating the need for peripheral venous access. Ports represent a convenient and efficient method when venous access is required on a permanent basis however they are also associated with significant vascular complications. Superior Vena Cava Obstruction (SVCO) is a rare but significant vascular complication of ports in this setting. Objective: We aimed to look at a single CF centre's experience of port-related SVCO over a thirty year period. Methods: Retrospective data was extracted using patient's notes, electronic radiological reports and local databases over a period in excess of 30 years from 1982 to 2014. Results: 13 patients were identified with SVCO as a result of their port. 11 patients had CF (9 female, 2 male), one male patient had Primary Ciliary Dyskinesia and one female patient had severe Asthma. The mean port function was 1532 days (range 110 - 4049) and the mean age at SVCO was 24 years (range 11.1 to 36.5 years). The most common symptoms were facial oedema (n=8, 61.5%) and dilated veins (n=6, 46.2%). 7 patients had their Ports removed after SVCO. 6 patients underwent attempted stenting (46.2%) and 6 did not. 4 out of the 6 who underwent stenting required/had re-intervention. 3 of the 6 patients who underwent stenting had symptom resolution, however, 4 of the 6 patients who were not stented had symptom resolution also. Symptom resolution was not guaranteed with stenting and required re-intervention in two-thirds. Conclusion: This case series represents the experience of one of the longest established CF units in the UK and represents the largest cohort ever reported in the literature.

Keywords : ports, Superior Vena Cava Obstruction, cystic fibrosis, access devices

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