**Introduction:** Penumbra's Indigo Aspiration System has been successfully used in patient with left hand ischemia.

**Case summary:** A 70 year-old male was admitted for severe ischemia of left hand. At CT angiography left subclavian and axillary arteries appeared slightly dilated and with marginal thrombosis; ulnar and radial arteries as superficial and deep palmar arches resulted totally thrombosed. An unsuccessful attempt of intra-arterial thrombolysis was made (intra-arterial sodic heparin and urokinase infusion, 1000 UI/h and 10^6 UI/h respectively with target aPTT value of 2-2.5 x basal). Then a second attempt was successful established with Indigo Aspiration System (through CAT6 for radial artery and CAT3, used coaxially with CAT6, for proximal superficial palmar arch) resulting in a complete revascularisation. To improve flow in common palmar digital arteries and in deep palmar arch, a 24 hour intra-arterial thrombolysis was successful carried out.

**Discussion:** Thick thrombosis is hardly loosened by intra-arterial thrombolysis, while it may be more easily solved after debulking with Indigo Aspiration System.