

EXPANDABLE SHEATH

ABSTRACT

A delivery sheath includes an elastic outer tubular layer and an inner tubular layer having a thick wall portion integrally connected to a thin wall portion. The inner tubular layer can have a compressed or folded condition wherein the thin wall portion folds onto an outer surface of the thick wall portion under urging of the elastic outer tubular layer. When an implant passes therethrough, the outer tubular layer stretches and the inner tubular layer unfolds into an expanded lumen diameter. Once the implant passes, the outer tubular layer again urges the inner tubular layer into the compressed condition with the sheath reassuming its smaller profile. The sheath may also include selectively placed longitudinal rods that mediate friction between the inner and outer tubular layers to facilitate easy expansion and collapse, thereby reducing the push force needed to advance the implant through the sheath's lumen.

Fig. 1