

DEVICE AND METHOD FOR A SAFE POSITIONING OF A CORONARY STENT
WITHIN CORONARY ARTERIES

ABSTRACT

The present invention is suitable for use in medicine to enable a maximally accurate, fast and safe positioning of a coronary stent in case of uncomplicated and complicated anatomic lesions of the coronary bed as well as for stenting renal, visceral arteries. The claimed device comprises a housing having a truncated front part and a cylindrical rear part connected to each other, wherein the cylindrical rear part is rotatable around its axis. On an inner surface of the cylindrical rear part of the housing, a thread is formed able to engage a protrusion on a runner arranged on guides inside the rear part of the housing. The runner is connected to a bushing of a gripping means having flaps with elastic members at the gripping point of a delivery system such that the gripping means is rotatable around its axis, the gripping means flaps are provided with protrusions arranged in a pressure roller provided inside the device housing to contract and release the gripping means flaps under the impact of a release means comprising a pressure surface on the truncated outer part of the housing and flaps arranged inside the housing at an angle to each other and to the pressure roller to release and fix, respectively, the delivery system within the device. In the preparation for use, a coronary stent carried by the delivery system is in advance progressively inserted inside the device following which the coronary stent carried by the delivery system is manually advanced to the affected area of the coronary artery, the delivery system is fixed by the gripping means flaps, and by rotating circumferentially the cylindrical rear part of the device, the stent carried by the delivery system is displaced longitudinally and positioned within the coronary artery.

Fig. 4