

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

ABSTRACT

The present invention is suitable for use in medicine for maximally accurate, fast and safe positioning a coronary stent in case of uncomplicated and complicated coronary bed lesions as well as for stenting renal, visceral arteries. The claimed device comprises a housing formed of a front part and rear part connected to each other by a circumferentially extending slot so that the rear part of the housing is rotatable, a runner with a cap screwed on the runner thread, a collet with hooks accommodated in the runner so as to be rotatable around its axis, a retainer with ears, wherein the runner cap is arranged inside the retainer. When the device is prepared for use, the coronary stent carried by a delivery system is first progressively inserted inside the device and then the coronary stent on the delivery system is manually advanced to an affected area of a coronary artery, the delivery system is fixed within the device and is positioned within a coronary artery by means of rotating the rear part of the housing. In the second exemplary embodiment, the device comprises a housing formed of a front part and a rear part connected to each other by a circumferentially extending slot so that the rear part of the housing is rotatable, a runner with a cap screwed on the runner thread, a clamp with flaps, said clamp formed integrally with the runner and accommodated in the runner, a retainer with ears, wherein the runner cap is arranged inside the retainer. In the third exemplary embodiment, the device comprises a housing formed of a front part and a rear part connected to each other by a circumferentially extending slot so that the rear part of the housing is rotatable, a runner with a cap screwed on the runner thread, a clamp with flaps, said clamp accommodated in the runner so as to be rotatable around its axis, a retainer with ears, wherein the runner cap is arranged inside the retainer. In the fourth exemplary embodiment, the device comprises a housing formed of a front part and a rear part connected to each other by a circumferentially extending slot so that the rear part of the housing is rotatable rear part of the housing, a runner with a cap screwed on the runner thread, a rubber bush provided with cone-shaped end surfaces and accommodated in the runner cap, retainer with ears, wherein the runner cap is arranged inside the retainer. When the device according to all embodiments is prepared for use, a coronary stent carried by a delivery system is first progressively inserted inside the device and then the coronary stent carried by the delivery system is advanced manually to an affected area of a coronary artery, the delivery system is fixed inside the device and is positioned within a coronary artery by means of rotating the rear part of the housing.

Fig. 4