

[gw22-e0645]

**STUDY ON THE EFFECT OF THE NEOINTIMAL PROLIFERATION OF CANINES CORONARY ARTERY OF THE STENT COATED WITH ESTRADIOL**

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10.1136/heartjnl-2011-300867.125

**Objective** To evaluate the effects of the neointimal proliferation of the stent coated with estradiol after percutaneous stent implantation.

**Methods** PLA was used as the carrier, The estradiol was blended with polymer in order to establish estradiol eluting stent. The canines were randomly assigned to three groups (five canines per group). PLA eluting stents, estradiol eluting stents, and bare metal stents were deployed into the coronary artery lesion. All canines were sacrificed 4 weeks after stenting for histopathological assessment and analysing lumen area, intimal area and percent area intima by computer graphic technology.

**Results** The intimal area (IA) and percent area intima of estradiol eluting stent group appears smaller than that of bare metal stents group and PLA eluting stent group ( $p < 0.05$ ). There is no statistical difference between the PLA eluting stents group and the bare metal stents group ( $p > 0.05$ ).

**Conclusion** The stent coated with estradiol carried by the degradable polymer may be useful for reducing in-stent restenosis by accelerating endothelialisation compared with the bare metal stent. The research in this field appears to be promising.