

By *in vitro* studies, it was found that  $\beta$ -endorphin ( $\beta$ -EP) stimulates estradiol-17 $\beta$  and progesterone secretion in the ovary of reproductive lizard *Podarcis s. sicula*; these effects were reversed by naloxone. In the post-ovulatory follicles no significant changes were observed in the progesterone titres, when the medium was supplemented by  $\beta$ -EP and/or naloxone; conversely, estradiol-17 $\beta$  was stimulated by  $\beta$ -EP and this effect was abolished by naloxone. The data reported here provide evidence for the tonic activity of an endogenous opioid system in the ovary of this lizard. The action exerted by homologous pituitary, moreover, has also been evaluated in order to compare the effects of  $\beta$ -EP with these of pituitary gland, generally considered the physiological trigger of gonadal function.