Aims:
The purpose of this study was to characterize the regional patterns of neuronal and axonal injury in immature rats following FCI.

Methods:
Experiments were performed in Wistar rats on postnatal day 12 and 25. FCI was induced by the intracerebral injection of Endothelin 1 (ET-1). Neuronal and axonal injury was assessed by the means of qualitative morphologic methods.

Results:
Our findings demonstrate that ET-1 induced FCI in the developing rat brain generates neuronal injury in the ipsilateral cortex and a distinct pattern of subcortical neuronal injury. The spatial spread of the damage to myelinated fibers seemed to be bigger than the extent of the area, where degenerating neurons were observed.

Keywords:
Oligodendrocyte, Focal cerebral ischemia, Endothelin-1, Myelin