As highly conserved endogenous non-coding RNAs, ~~miRNAs~~ miRNAs ~~are highly conserved endogenous non-coding RNAs, which~~ mainly regulate the expression of protein-coding genes [12]. Neuron necrosis is ~~the~~ a main feature of acute ischemic stroke ~~. Neuron necrosis~~and mainly occurs in the central area of cerebral infarction, ~~but~~ although it can also be observed ~~exists~~ in the ischemic penumbra around the central area of cerebral infarction. In ischemic penumbra, c~~C~~ells are in a semi-dormant state and can be transformed into normal brain tissues. Therefore, ~~rescuing~~ the rescue of penumbra has become a hot spot of the current research [13,14]. In this study, ~~rats were divided into three groups. T~~the results showed that compared with the rats in the Sham group, the content of CSF miR-151a-3p ~~in CSF~~ was increased in the rats of the I/R ~~group~~ and ASO-miR-151a-3p treatment groups ~~compared with Sham group~~, but the content of CSF miR-151a-3p in the ~~of~~ ASO-miR-151a-3p treatment group was ~~decreased~~ lower than that in ~~compared with~~ the I/R group ~~, with statistical significance~~ ($P < 0.05$). The results of neurological grading ~~score~~, cerebral infarction area ~~observation~~, brain edema and apoptosis analysis ~~analysis~~ of the three groups of rats showed that although the content of CSF miR-151a-3p in ~~CSF of~~ the I/R ~~model~~ group was significantly higher than that ~~of~~ in the Sham group, the content of CSF miR-151a-3p in ~~CSF of~~ the ASO-miR-151a-3p treatment group was lower than that ~~of~~ in the I/R group ~~, with statistical significance~~ ($P < 0.05$). Therefore, it can be inferred that ~~blocking~~ the silencing of miR-15la-3p can ~~protect~~ prevent the nerve injury caused by cerebral ~~ischemia-reperfusion~~I/R.

~~Recent studies~~It has been ~~have~~ shown that miRNAs also play a very important role in the pathogenesis of inflammation. For example, miR-155 and miR-146a are highly expressed in macrophages stimulated by LPS, while~~.~~ miR-155 can activate IKK (IκB kinase) and NF-κB, which in turn lead to the release of downstream inflammatory factors ~~and play a role~~ [15,16]. In addition, ~~studies have shown that, in addition,~~ miR-34a, miR1224 and miR-151a ~~have~~ were ~~been proved~~shown to play an important regulatory role in inflammatory response [17,18]. In this study,