

## عنوان مقاله:

The role of caspase-dependent and caspase-independent pathways of apoptosis in the premature rupture of the membranes: A case-control study

## محل انتشار:

مجله طب تولید مثل ایران، دوره 18، شماره 6 (سال: 1399)

تعداد صفحات اصل مقاله: 10

## نویسندگان:

Ketut Surya Negara - *Department of Obstetrics and Gynecology, Medical Faculty of Udayana University, Sanglah Hospital, Bali, Indonesia*

Ketut Suwiyoga - *Department of Obstetrics and Gynecology, Medical Faculty of Udayana University, Sanglah Hospital, Bali, Indonesia*

.Raka Sudewi - *Department of Neurology, Medical Faculty of Udayana University, Sanglah Hospital Bali, Indonesia*

.Nyoman Mantik Astawa - *Laboratory of Veterinary Medicine, Udayana University Bali, Indonesia*

.Gusti Nyoman Kamasan Arijana - *Biomedic Laboratory of Medical Faculty Udayana University, Bali, Indonesia*

.Ketut Tunas - *Department of Public Health, Dhyana Pura University Bali, Indonesia*

Tjokorda Gede Astawa Pemayun - *Department of Obstetrics and Gynecology, Medical Faculty of Udayana University, Sanglah Hospital, Bali, Indonesia*

## خلاصه مقاله:

Background: Premature rupture of membrane (PROM) remains a problem in obstetrics, the mechanisms of PROM have not been clearly defined. Apoptosis is thought to play a key role in the mechanism, via caspase-dependent and caspase-independent pathways. Caspase-3, Apoptosis-inducing factor (AIF), and anti-apoptosis B-cell lymphoma 2 (Bcl-2) are hypothesized to be involved in PROM. Objective: To determine the role of caspase-dependent and caspase-independent pathways in the mechanism of PROM. Materials and Methods: This was a case-control study involving 42 pregnant women with gestational age between 20-42 wk. Participants were divided into the case group (with PROM) and control group (without PROM). Amniotic membranes were collected immediately after the delivery, and samples were taken from the site of membrane rupture. Immunohistochemical examination was done to determine the expression of Caspase-3, AIF, and Bcl-2. Results: The expressions of Caspase-3 (OR = 9.75; 95% CI = 2.16-43.95; p = 0.001) and AIF (OR = 6.60; 95% CI = 1.48-29.36; p = 0.009) were significantly increased, whereas, Bcl-2 expressions (OR = 8.00; 95% CI = 1.79-35.74; p = 0.004) were significantly decreased in the case group. Conclusion: High Caspase-3, AIF, and low Bcl-2 expression were the risk factors for PROM. Thus, it is evident that .caspase-dependent and caspase-independent pathways are involved in the mechanism of PROM

## کلمات کلیدی:

Premature, Membrane, Apoptosis, Caspase, Pregnancy, غشایی, آپوپتوز, کاسپاز,

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1170054>

