

## ABSTRACT

**Purpose:** To analyze the effect of allogenic Natural Killer cells in caspase-3 of retinoblastoma cell culture at Dr. Soetomo Hospital Surabaya.

**Methods:** An experimental study was conducted. Experimental sample unit taken from enucleated intraocular retinoblastoma, then the tumour was being cultured and replicated into 20 wells and divided into two groups. Each group consist of 10 wells of retinoblastoma cell culture. Treatment group was given with allogenic Natural Killer cells from patient's mother. Expression of caspase-3 in both group was exmined using flowcytometry in 14<sup>th</sup> day. The data was collected and analyzed statistically using independent t-test.

**Result:** Expression of caspase-3 in treatment group was  $70.03 \pm 3.63$  and in control group was  $90.27 \pm 1.70$ .

**Conclusion:** There was significant difference of caspase-3 expression between treatment group and control group  $p = 0.000$  ( $p < 0.01$ )

**Keywords:** caspase-3, flowcytometry, Natural Killer cell

