

# Why do younger breast cancer patients with blood group O have favorable prognosis?

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## To the editor,

I want to congratulate Park and colleagues for their article [1] in which they investigated the relationship between ABO blood types and breast cancer survival in young Korean patients. They reported that compared to blood group non-O, patients with blood group O were more likely to have favorable prognosis when younger than 40 years. Blood group antigens are expressed on the surface of red blood cells and numerous other tissues throughout the body, including breast ductal and lobular cells [2]. These A or B antigens on breast cancer cell surface may hide the breast cancer cells from immune system reaction against the breast cancer cells. Since breast cancer cells harboring no A or B antigens, so-called O type breast cancer cells may be recognized as a cell different than normal cells and destructed by immune cells. This proposal might explain why breast cancer cells with blood group O had a favorable prognosis compared to non-O groups in younger breast cancer patients. This proposal needs to be explored in further studies.

## Compliance with ethical standards

**Conflict of interest** The author declares no conflict of interest.

**Ethical approval** This paper did not involve human participants and/or animals.

**Informed consent** Not applicable.

## References

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