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TRIPLE-NEGATIVE BREAST CANCER AND METABOLOMICS: A SYSTEMATIC REVIEW

END-OF-DEGREE PROJECT

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Summary

Breast cancer (BC) is the most common neoplasm in women. There are three subtypes: luminal, HER-2+ and triple negative (TN). TNBC, although the least frequent, is the most aggressive and has the worst prognosis, mainly due to the lack of information on its development.

The aim of this study is to review the association between TNBC and metabolomics, which is an emerging technique that allows the comparison of large numbers of metabolites in biological samples, and to establish possible new therapeutic targets given the lack of response to targeted hormone therapy.

A systematic search of evidence has been carried out using the PubMed database and following the PRISMA guidelines, restricting the publication date to the last thirty years. Of 148 articles reviewed, 17 were included with a total of 1686 participants, among which differences in metabolic pathways were sought between healthy patients, those with BC and those with TNBC.

This paper summarises the significant findings of the selected studies, showing that the quantitative alterations observed in the metabolites analysed can be established as new biomarkers and therapeutic targets for TNBC.

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