

THE VALUE OF METFORMIN IN PANCREATIC DUCTAL ADENOCARCINOMA TREATMENT

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INTRODUCTION

With a frustratingly poor prognosis pancreatic cancer (PDAC) is expected to rank 2nd among lethal malignancies in the mortality rate by 2030. Recent findings provide that usage of metformin may serve as a promising chemotherapeutic agent which provides potentially superior oncological outcomes for PDAC patients.

METHODS

A systematic literature review was prepared:

- PRISMA criteria were followed,
- bibliographic databases of medicine (PubMed, MEDLINE) were selected; filters used in the database: English, humans.
- the period of 2017 – 2022 was chosen,
- "Pancreatic ductal carcinoma" or "PDAC" or "pancreatic cancer" and "metformin" were used as the main combination keywords, following MeSH Terms.

CONCLUSIONS

Metformin's anticancer effect synergize with already existing chemotherapeutics, which allows to postulate that metformin is associated with better survival rates depending on individual pathological features, operative results and further adjuvant chemotherapy.

Therapeutic metformin exposure was related to modestly augmenting short-term survival rates and however unaffected long-term survival rates of PDAC patients.

AIM

Investigate the possible preventive and curative clinical effect of metformin in combination with chemotherapy and targeted agents in pancreatic ductal adenocarcinoma.

RESULTS

- 48 scientific articles were found;
- Based on PRISMA inclusion and exclusion criteria, 14 articles were included in the further analysis:
 - 9 literature review,
 - 2 systematic review and meta-analysis,
 - 3 observational studies.