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DNA alkylation lesion repair: outcomes and implications in cancer chemotherapy

Key words: Alkylation repair, Base excision repair, MGMT, ALKBH

Research Summary

This review mainly focused on the regulation and the outcomes of DNA alkylation lesion repair, and how these outcomes influence the carcinogenesis and individual response to alkylation chemotherapy.

Innovation points

- **Introduction** of alkylating agents and alkylation lesions induced in biological system.
- **Summary** of the regulation and the coordination of alkylation lesion repair pathways. How these repair pathways drive to the biological effects in cells, in turn contributing to the carcinogenesis and response to alkylation chemotherapy.
- **Emphasis** of the role of DNA alkylation repair in the cancer prevention and treatment.

Research Summary