

ANTI TUMOR ANTIBIOTICS

BLEOMYCIN

00:00:015

72

Anti Tumor Antibiotics

- MOA → ⊖ Topoisomerase II → 'S' ⊖
 ↳ Free radical → DNA damage → G₁2 ⊖
- Uses → Hodgkin's disease (ABVD regimen)
 ↳ Testicular Ca.
- s.e. - Flagellate dermatitis
 Pulmonary fibrosis.

ACTINOMYCIN-D (DACTINOMYCIN)

00:06:07

- MOA → Binds ε DNA → ⊖ RNA Polymerase.
- Use: → Wilms tumor
 ↳ Chorio carcinoma.
- s.e.: - Radiation recall syndrome (also ε Doxorubicin & Daunorubicin)

MITOMYCIN -C

00:09:39

- MOA → ⊖ T.I-II
 ↳ alkylates DNA.
- Use
 - Topical
 - Anal Ca, Bladder Ca.
 - Prevent → laryngotracheal stenosis.
 ↳ Post nasal S_x synechae formation.
- No systemic use due to side effects
- s.e.: - HUS (also caused by gemtabine), TTP, Pulm. fibrosis
- Radio sensitizer.

ANTHRACYCLINE GROUP

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- MOA \rightarrow \ominus T.I-II
 - \rightarrow Free radical production.
 - cardiotoxicity \rightarrow Prevented by Dexrazoxan.

• Drugs:

 \rightarrow Daunorubicin \rightarrow Idarubicin- TOC for AML \rightarrow Daunorubicin/Idarubicin + cytarabine- FLT-3 \oplus AML \rightarrow Midostaurin \rightarrow Multi TK \ominus
 \rightarrow Gilteritinib \rightarrow FLT-3 \ominus \rightarrow Doxorubicin (adriamycin) \rightarrow Hodgkin's disease
 \rightarrow osteosarcoma. \rightarrow Epirubicin \rightarrow Breast Ca \rightarrow Valrubicin \rightarrow Bladder Ca.• Mitoxantrone \rightarrow AML
 \rightarrow Multiple sclerosis.

• Side effects:

- Cardiotoxicity \rightarrow Max ε Doxorubicin & Daunorubicin
 \rightarrow Min ε Mitoxantrone.- Red discoloration of urine \rightarrow Doxo, Dauno.- 2^o leukemia - Mitoxantrone.