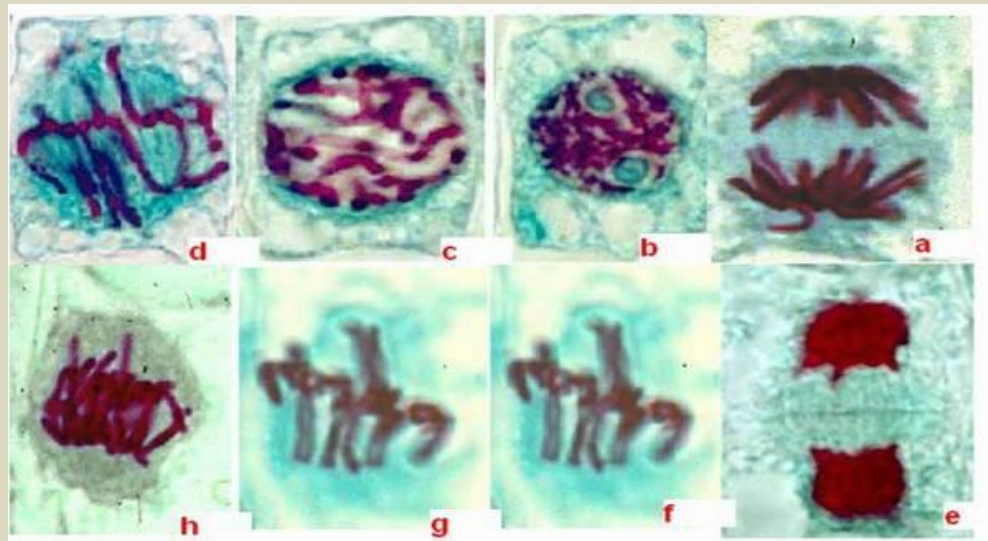
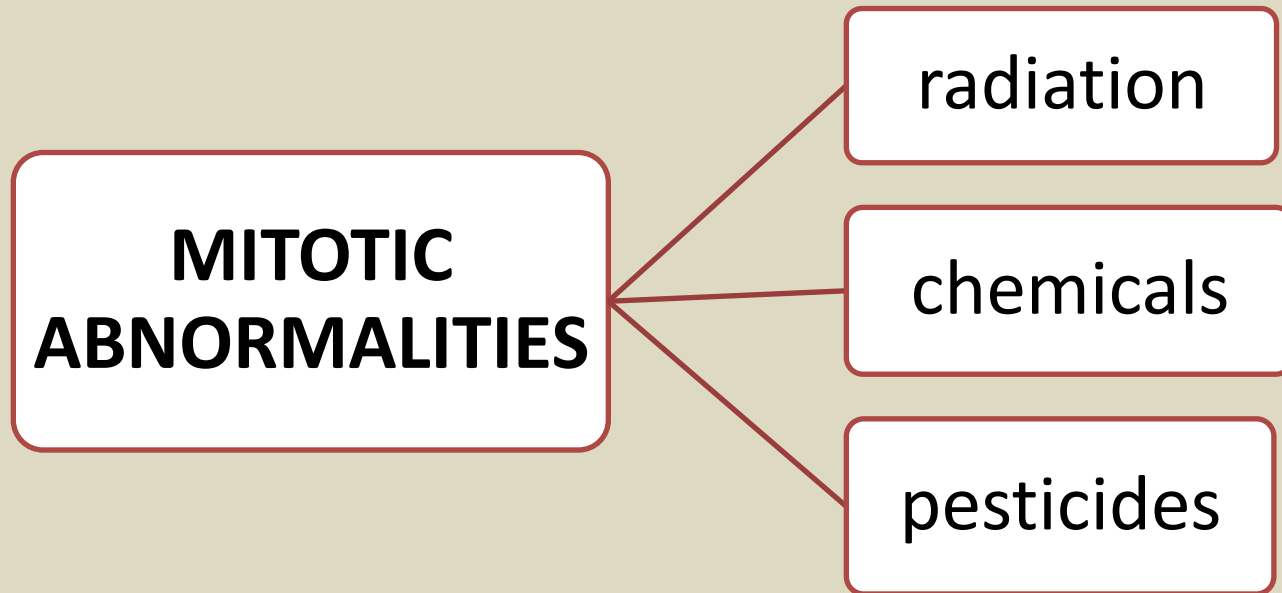


MITOTIC ABNORMALITIES



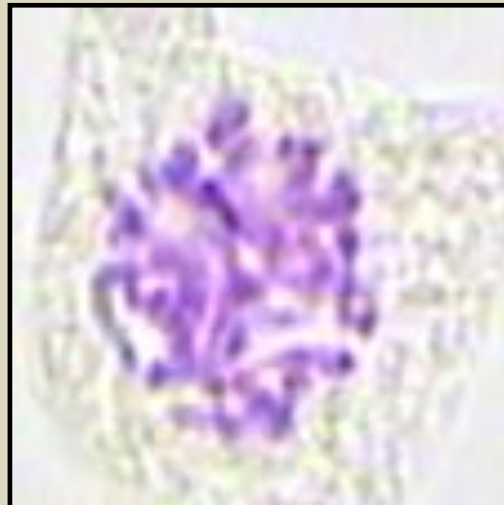
- Occur due to the effect of different agent environmental agents such as radiation, chemicals, pesticides or any toxic agent.



Types of chromosomal abnormalities

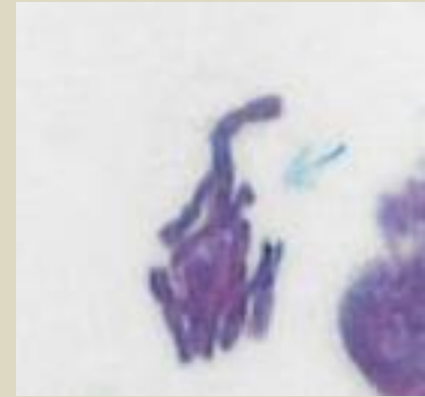
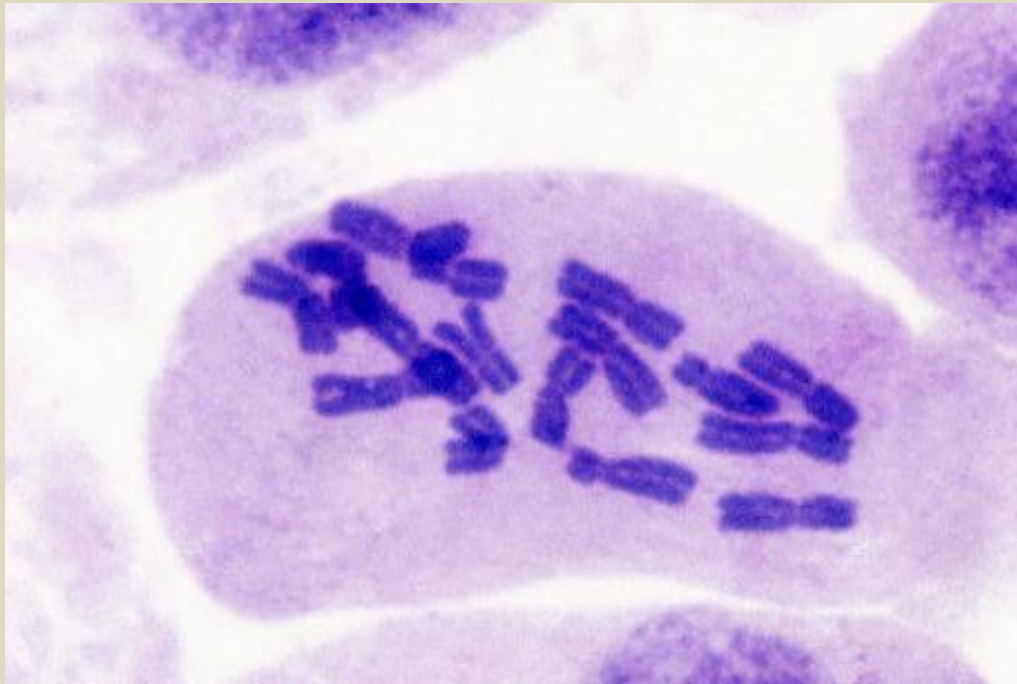
1- In prophase:

Despiralization

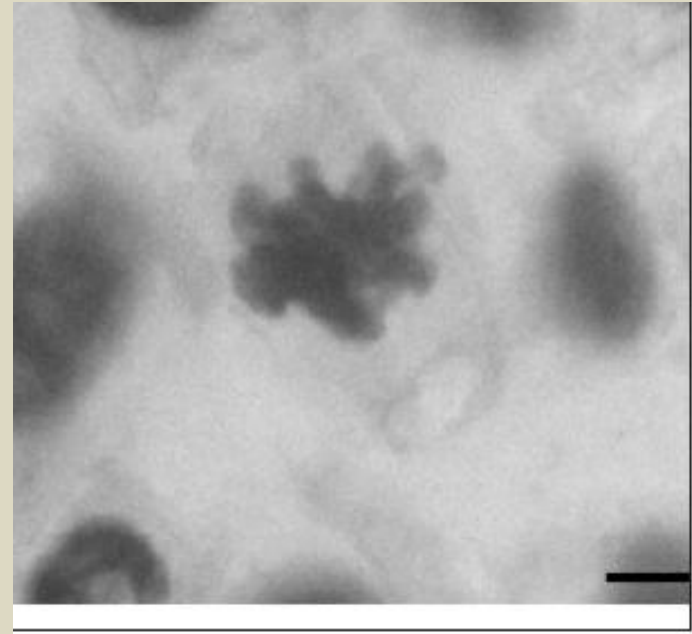
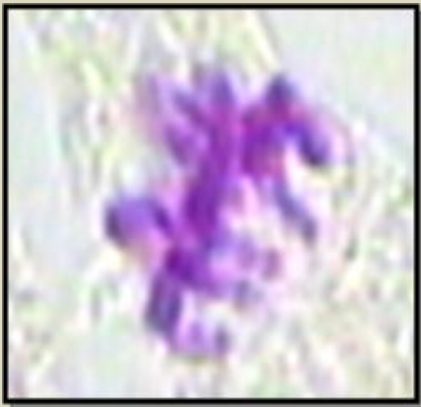


2- In Metaphase:

a. C-Metaphase:

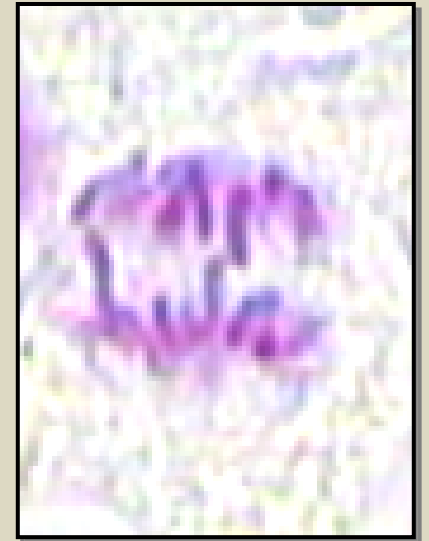
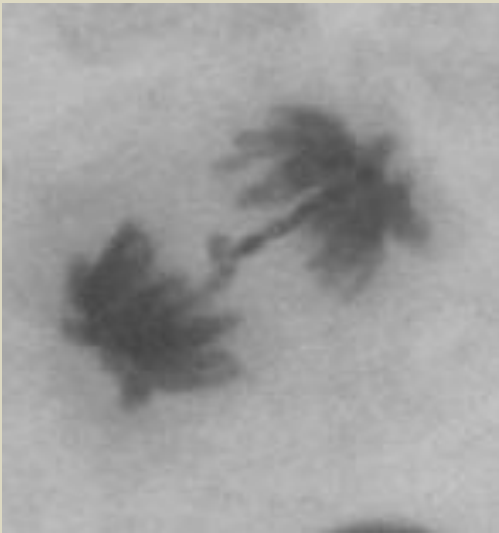


b. Sticky Metaphase:

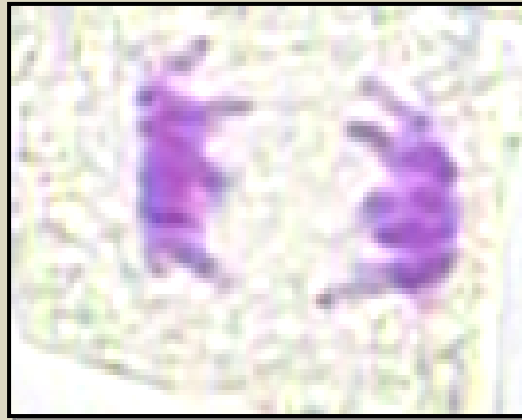
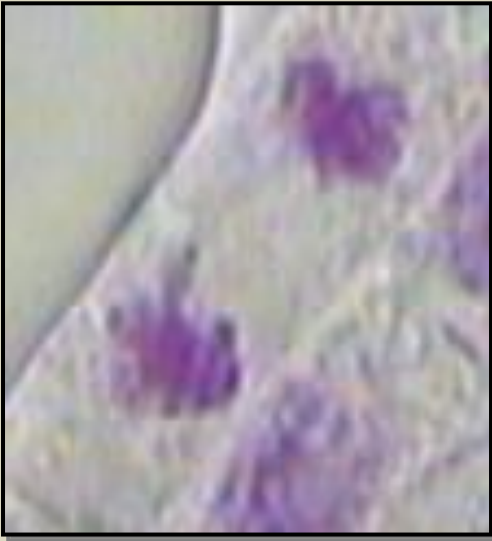


3- In Anaphase:

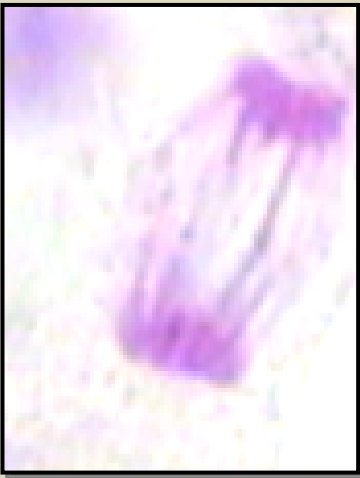
a- lagging chromosomes:



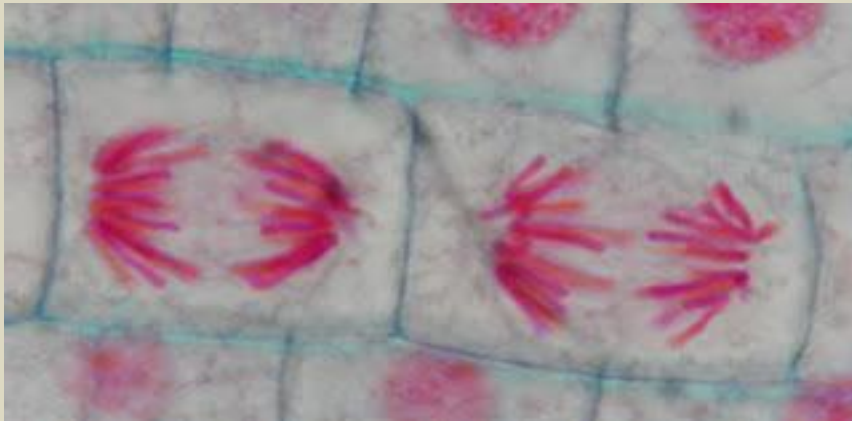
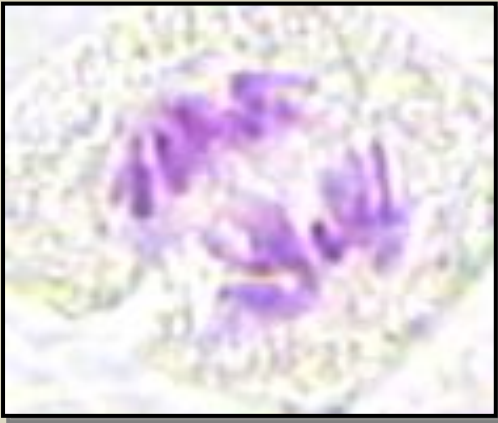
b. Sticky in Anaphase



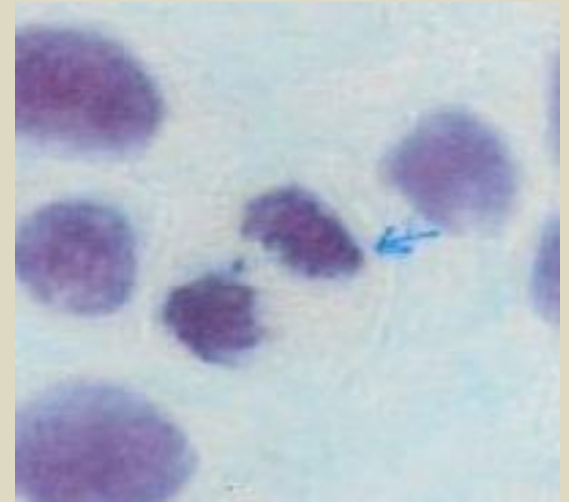
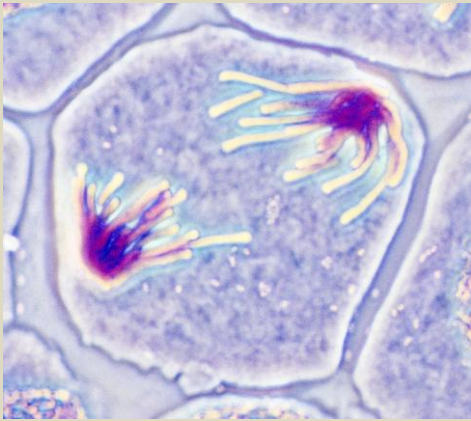
C. Bridge in Anaphase



D. Multipolar Anaphase

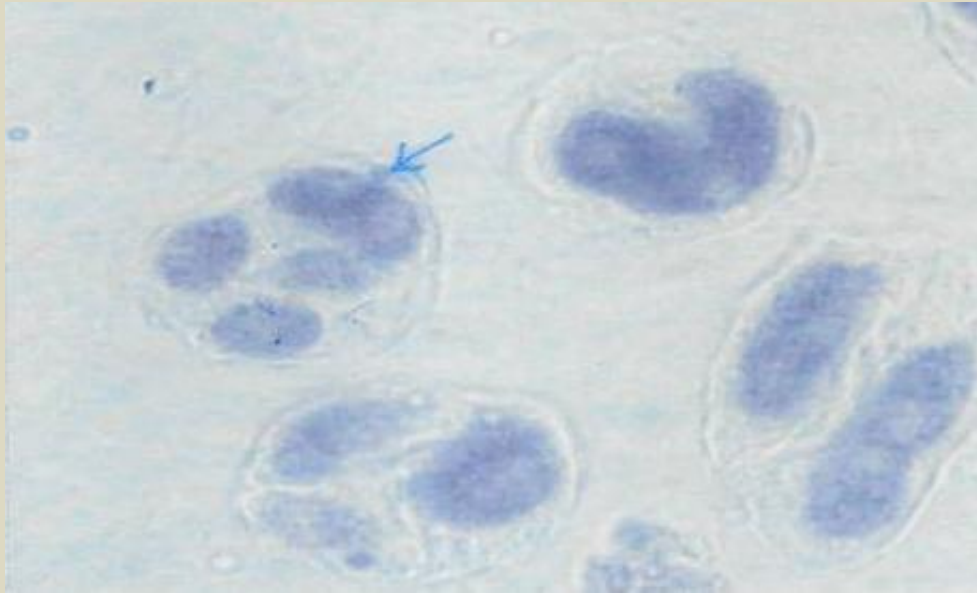


e. Un-oriented chromosome:

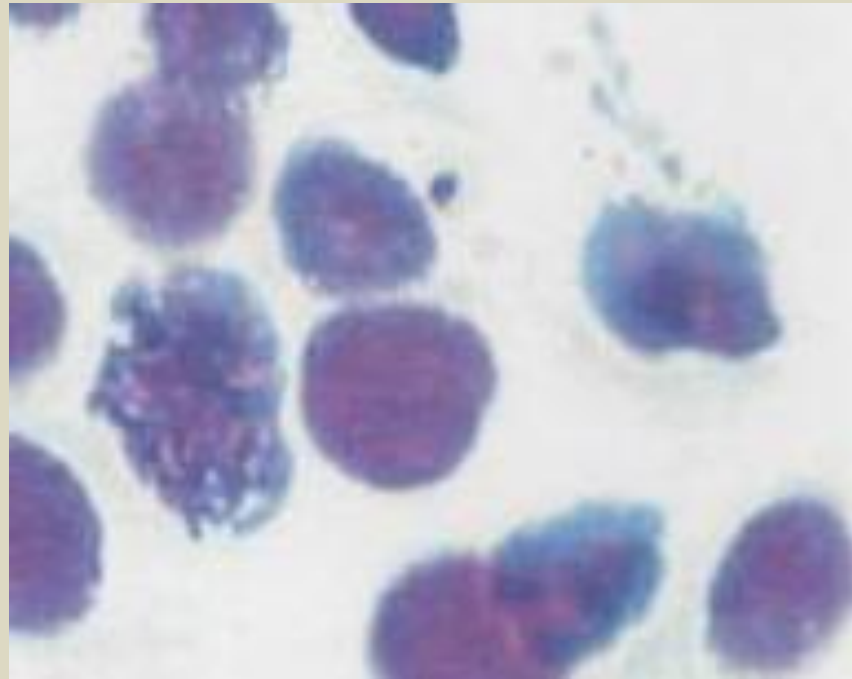


4-In Telophase;

a. multinuclei



b. Micronuclei :



MITOTIC ABNORMALITIES

prophase

Despiralization

Metaphase

Sticky
Metaphase

C-Metaphase

Anaphase

Multipolar
anaphase

Bridge in
Anaphase

Sticky in
Anaphase

lagging
chromosomes

Un-oriented
chromosome

Telophase

multinuclei

Micronuclei