

**DEFINITION**

1. A diverse group of marrow disorders characterised by pancytopenia (reduction of all types of cell) in the peripheral blood and a marrow which is largely devoid of blood-forming cells.

**CLINICAL MANIFESTATIONS**

2. These are either the result of the anaemia itself or arise from complications of the condition, especially bleeding and infection.
3. The condition may present with tiredness, dyspnoea, and spontaneous bleeding or recurrent infections.

**AETIOLOGY**

4. Aplastic anaemia may be **acquired** from -
  - 4.1. treatment with cytotoxic drugs
  - 4.2. irradiation
  - 4.3. idiosyncrasy to certain drugs or toxic chemicals such as -
    - 4.3.1. antimicrobial drugs such as chloramphenicol, organic arsenicals, quinacrine, streptomycin, penicillin, methicillin, oxytetracycline, chlortetracycline, sulphonamides and amphotericin B.
    - 4.3.2. antithyroid drugs such as carbimazole, tapazole, potassium perchlorate and propylthiouracil.
    - 4.3.3. antirheumatic drugs such as indomethacin, phenylbutazone, gold compounds, acetylsalicylic acid, penicillamine and colchicine.
    - 4.3.4. antidiabetic drugs such as chlorpropamide, carbutamide and tolbutamide.
    - 4.3.5. antihistamines such as pyribenzamine.
    - 4.3.6. anticonvulsants such as mesantoin, tridione, phenurone, phenytoin, ethosuximide and carbamazepine.
    - 4.3.7. sedatives and tranquillisers such as meprobamate, chlorpromazine, promazine, chlordiazepoxide, mepazine.
    - 4.3.8. antimalarials
    - 4.3.9. industrial chemicals and insecticides, chiefly benzene and its derivatives such as trinitrophenol, trinitrotoluene and gamma-benzene hydrochloride

- 4.4. viral infections, particularly viral hepatitis
- 4.5. an autoimmune condition. Autoimmune diseases are those in which the body reacts against its own constituents. Genetic factors are important. These may be solely responsible or may merely create a predisposition in which the body then reacts to an external factor, thus leading to the autoimmune response. External factors which interact with a genetic predisposition are infection (especially viral) and drugs.
5. Aplastic anaemia may be inherited, being then designated **constitutional**. These forms frequently arise in combination with various congenital abnormalities.
6. In about half the cases of aplastic anaemia it is not possible to define an aetiological agent, the condition then being said to be **idiopathic**.

## CONCLUSION

7. **Aplastic anaemia** is a term used to denote a group of conditions in which there is failure of the blood cell forming elements of the marrow which may result from a toxic effect on the marrow of some noxious substance, from viral infection, from autoimmune reaction, from inherited defect or not have an identifiable cause.

## REFERENCES

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