

SUMMARY

Thirty two albino rats of both sexes were utilized in this study. The animals were divided into eight groups of different ages. The ages chosen were, one day, three days, one week, two weeks, one month, three months, six months and one year. They were anaesthetized with chloroform, sacrificed and pancreas was dissected out and immediately fixed in Bouin's fluid. Paraffin sections of six micrometers thickness were obtained.

They were stained with Haematoxylin and Eosin for demonstration of the general histological picture, Gomori's reticulin for reticular fibers and modified aldehyde fuchsin for identification of islet cells.

The results revealed the following :

- The islets of Langerhans in albino rat were found as irregular cords of cells surrounded by the pancreatic acini. Numerous blood capillaries were found between the cords.
- The reticular fibers around the islets were relatively thick at birth and decreased gradually with age to form a thin layer around the islet at the senile age.

- At birth the islets were formed mainly of B-cells, A and D-cells were very few.
- A-cells increased with age but still ranged next to B-cells while B-cells decreased with age.
- At adult age, A-cells were about 15%, B-cells were about 80% and D-cells were about 5% of islet cells.