Topic: Embryo

B.Sc. Botany Subs. II

Group: B

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- The outer cells divide further by anticlinal division forming a peripheral layer of epidermal cells, the dermatogen.
- The inner cells divide by longitudinal and transverse divisions forming periblem beneath the dermatogen and plerome in the central region.
- The cells of periblem give rise to the cortex while that of plerome form the stele.
- At the time of the development of the octant stage of embryo the two basal cells divide transversely forming a 6-10 celled filament, the suspensor which attains its maximum development

by the time embryo attains globular stage.

- The suspensor pushes the embryo cells down into the endosperm.
- The distal cell of the suspensor is much larger than the other cells and acts as a haustorium.
- The lowermost cell of the suspensor is known as hypophysis. By further divisions, the hypophysis gives rise to the embryonic root and root cap.
- With the continuous growth, the embryo becomes heart-shaped which is made up of two primordia of cotyledons.

- The mature embryo consists of a short axis and two cotyledons. Each cotyledon appears on either side of the hypocotyl.
- In most of dicotyledons, the general course of embryogenesis is followed as seen in Capsella bursa-pastoris.

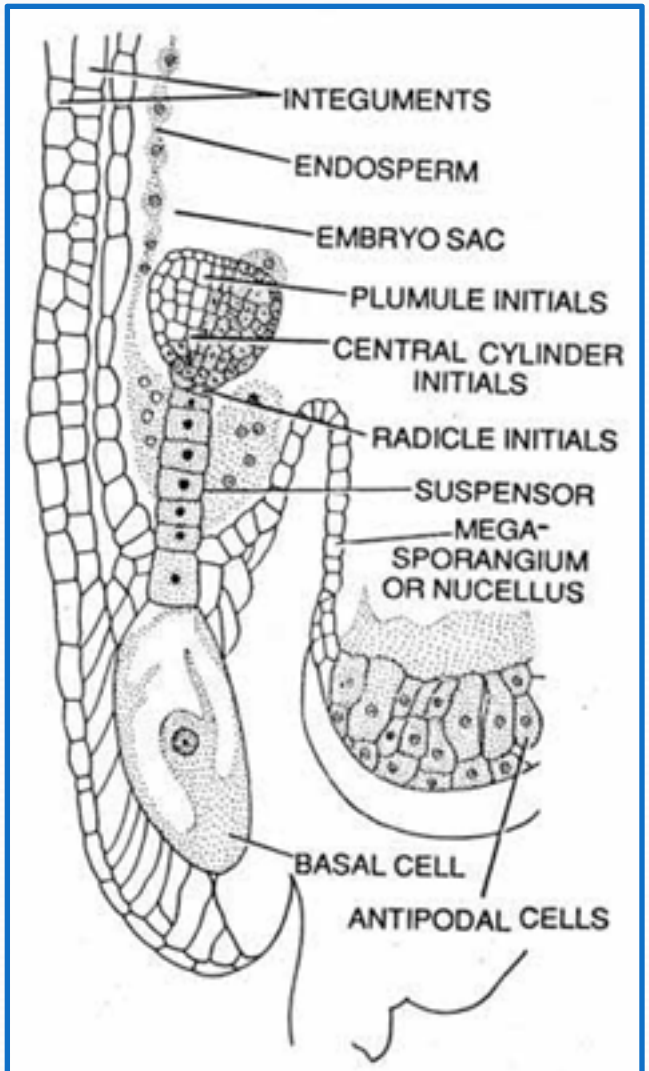

Fig. The embryo. L.S. showing differentiation of embryo in *Capsella*.