

An Asterina Gibbosa Immune Organ in Sem

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ABSTRACT

An Asterina gibbosa immune organ : the axial organ was shown in SEM. It presents an aboral part (PA) and an oral part (PO) which is « sensu stricto », considered, as a primitive lymphoid organ.

INTRODUCTION

In 1974, the sea star axial organ was considered as an enigmatic organ.

The same year, Leclerc (Ref.1) described it as a primitive immune organ which contains lymphocytes (Oral part) and germinal cells, in the aboral part.

We have decided to study this organ in SEM.

MATERIALS AND METHODS

Asterina gibbosa axial complex was isolated after dissection and fixed with gradual alcohols

(from 30° to 100°). Then it was treated by critical point to be observed with a scanning microscope Hitachi.

RESULTS

- The aboral part (PA) contains the aboral part « sensu stricto » (Pa) and lateral appendices (A L) which are called « Gastric haemal tufts » by anglo-saxon researchers (Fig.3-4)
- The oral part (PO) is glandular (Fig.2 Magnification 5000) : it lies along the stone canal and is situated in the left axial sinus (S.a.g ; Fig 1).

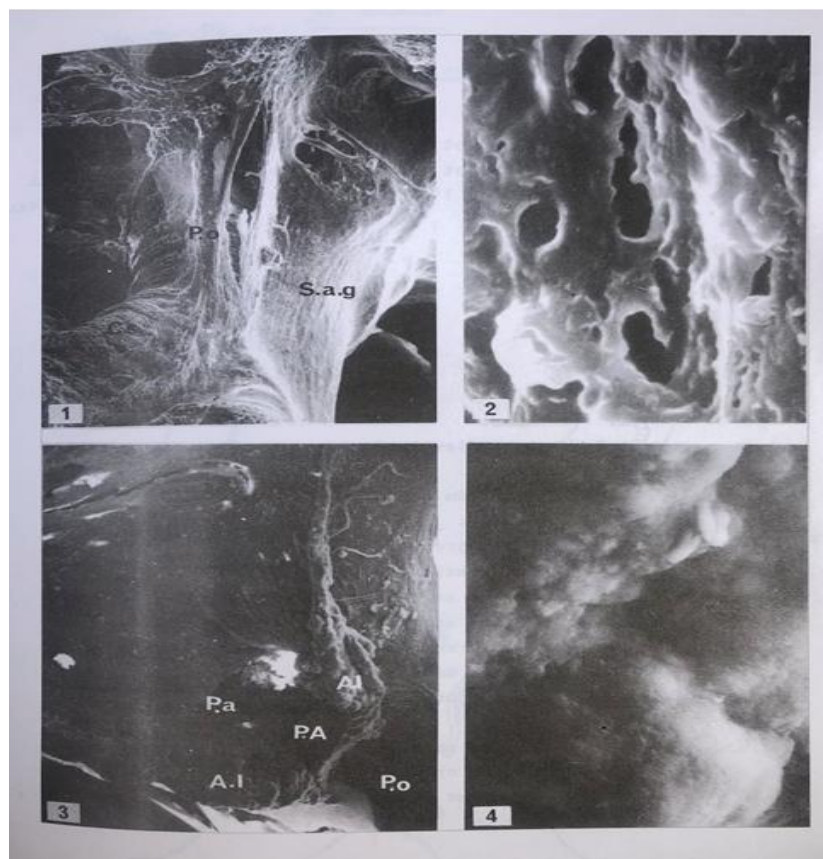


Fig1.

DISCUSSION CONCLUSION

We recall that the aboral part plays a rôle in the germinal differentiation (Ref.1); its structure is villous (Fig.4) and not cavernous.

As for the oral part, it contains lymphocytes (sea star T and B lymphocytes), plasmolymphocytes and phagocytes (Ref.2). Genomic studies have proven oral part is of special interest, since the

IPA (Invertebrate Primitive Antibody) has been discovered in 2013 (Ref.3).

REFERENCES

- [1] Leclerc, M. (1974) Thèse de Doctoratès Sciences, Orléans (France).
- [2] Leclerc, M. et al (1993) Thymus 133-139.
- [3] Leclerc, M. (2013) Amer. J. Immunol 94-95.

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