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Editorial

Don’t judge a book by its cover - Appearance can be deceptive

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This is all about an interesting histopathological finding which I came across recently while gazing my world under the microscope. It was case of a 32 year old female, Para2, Live2 with history of previous LSCS who presented with complaints of abdominal pain since 1 year and clinically diagnosed to have scar endometriosis. USG Abdomen showed mixed cystic solid lesion in mid anterior lower abdominal wall near cesarean scar - likely scar endometriosis and thickening of junctional zone of anterior myometrium - ? adenomyosis (**Figure 1**). Patient was posted for excision of the lesion - scar endometriosis with mesh repair. On gross examination, a roughly ovoid lesion measuring 7x5.5x2cm was obtained, external surface of which showed attached adipose tissue. Sectioning showed an ill-defined lesion measuring 4x3.5x2.5cm with a firm grey white homogenous cut surface and a few tiny cystic spaces ranging in size from 0.1-0.2cm in diameter with some of them containing chocolate brown fluid. Histopathological examination showed fibrosclerotic tissue with endometrial glands and stroma - consistent with endometriosis. An interesting finding in this case was that focal areas showed a group of cells resembling giant cells but not giant cells. I was wondering about the origin of the cells and searched the literature.

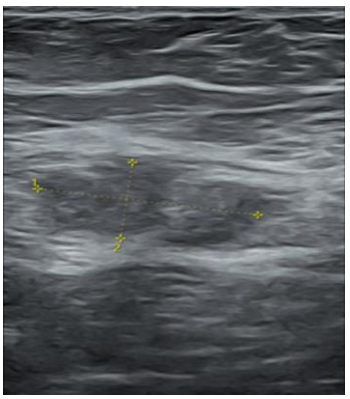

Figure 1: Mixed cystic solid lesion in mid anterior lower abdominal wall near cesarean scar - likely scar endometriosis.

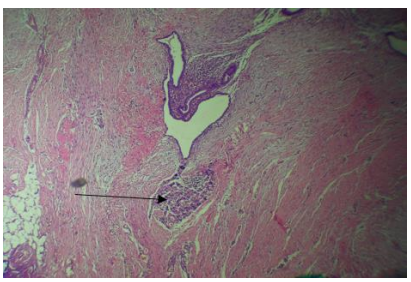

Figure 2: Fibrosclerotic tissue showing endometrial glands and stroma including a few cystically dilated glands - consistent with Endometriosis and focal areas with atrophic muscle fibres – Indicated by black arrow. (H&E at 40x)

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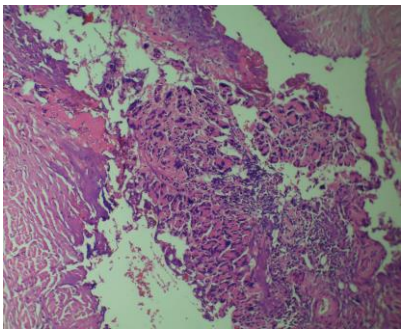

Figure 3: Atrophic muscle fibres with peripherally placed nuclei mimicking multinucleate giant cells (H&E at 100x)

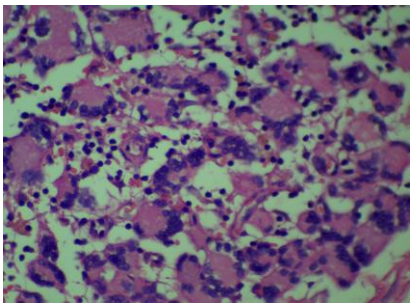

Figure 4: Atrophic muscle fibres with peripherally placed nuclei mimicking multinucleate giant cells (H&E at 400x)

As I searched through the literature, I was able to identify that those cells which looked like giant cells were actually atrophic skeletal muscle fibres and not multinucleate giant cells. Atrophic skeletal muscle fibres appears as large, basophilic multinucleate cells and sometimes might look scary on histopathological examination.[1] As the cytoplasm of the muscle fibres shrinks as they atrophy, the nuclei group together and gives an appearance of a multinucleate giant cells (**Figure 2**, **Figure 3**, **Figure 4**). Atrophic skeletal muscle fibres can appear pleomorphic misleading to a diagnosis of malignancy. Similar findings of atrophic skeletal muscle fibres amidst the tumour can be seen in desmoid fibromatosis. Desmoid fibromatosis usually occurs in the abdomen and it could be a manifestation of Gardner's syndrome.[2] Desmoid fibromatosis as such does not result in atrophic muscle fibers but however if the tumor grows within a muscle, it can compress and lead to secondary muscle atrophy due to the physical pressure produced by the tumor mass on the muscle fibers. It is important to be aware of such findings and not diagnosing them falsely as multinucleate giant cells, malignancy, rhabdomyoblasts, etc. as they can look wild and bizarre. So, the take home message is salt and sugar looks the same. So, we should be always have an eagle eye and interpret the histological findings in an appropriate context.

Conflict of Interest

None.

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