Background:
Uterine leiomyomas are common benign neoplasms occurring in 20% to 30% of women of reproductive age. Leiomyomas can undergo variable changes making diagnosis a challenge. The literature shows that these cases can mimic as ovarian cyst, endometrioma or adenomyoma.

Case: A 33 year old nulliparous patient presented with acute abdominal pain and lump. On examination a tender mass was palpable extending from pelvis towards right lower quadrant of the abdomen. The Ultrasound scan showed 9 x 8 x 6 cms leiomyoma and on top, there was a cyst of size 8 x 6 x 6 cms. The cyst had some solid areas but no papillary projections. The top of the cyst was difficult to define. Right ovary could not be identified separately. Left ovary was normal. Uterus was normal sized. There were minimal free fluid. CT scan showed very large partly solid/cystic mass arising from left side of the pelvis. No enlarged lymph nodes identified. Tumour markers were normal. As patient was symptomatic, Laparoscopy was performed. It showed 6 cms x 6 cms cyst on top of the leiomyoma at uterine fundus. The cyst was drained. It was difficult to reach to the base of the cyst hence laparotomy was performed. Cyst and leiomyoma were removed together. Both tubes and ovaries were normal. Endometrial cavity was not breached. Post-operative recovery was uneventful.

Discussion:
Cystic degeneration is observed in about 4% of leiomyomas. In general, these areas of cystic degeneration are irregular and can appear as a combination of cystic and solid components of variable echogenicity. The preferred imaging modality for the initial evaluation is ultrasonography. CT scan can be useful to exclude other non-gynaecological lesions. Although, MRI is preferred for demonstrating the character of a fibroid mass, it is not usually used as first-line imaging due to high cost and availability. Our case demonstrates some of the diagnostic features of cystic degeneration from Scan and CT.

Conclusions:
Ultrasound is the first line investigation in the diagnosis of the cystic lesion. degenerating fibroids can have variable patterns and pose diagnostic challenges. MRI helps in the demarcation of leiomyoma and exclude lymph node involvement.