A case series of angiomyolipoma with medical and surgical perspective

Kumar Jayant¹, Santosh Kumar¹, Shrawan Kumar Singh¹ and Swati Agrawal²
¹Postgraduate Institute of Medical Education and Research, India
²The University of Chicago Medicine, USA

Introduction: The angiomyolipoma of renal origin is a rare benign tumor composed of fat cells, smooth muscle cells and thick-wall blood vessels. Mostly these are sporadic origin asymptomatic and benign in nature.

Case series: Here we are presenting a case series of renal angiomyolipoma (AML) presenting as fever, pain, perirenal hematoma and frank hematuria. After initial stabilization evaluated by contrast enhanced computer tomography and diagnosed as renal angiomyolipoma because of low Hounsfield areas (10-20HU) suggestive for fat. Patient later underwent angiography which showed multiple aneurysmal dilations, arteriovenous fistulae and actively bleeding vessels were identified and controlled with selective angiembolisation. Post intervention period was uneventful and was treated by an oral Everolimus 10 mg daily for a period of 1 year in first case and partial resection was done in second case. On two year follow-up both patient were doing well and had normal renal function without any recurrence.

Conclusion: Embolization is the emergency treatment of choice for bleeding angiomyolipoma. When preventive treatment is considered a nephron-sparing approach either by transarterial embolization or partial nephrectomy is clearly important. While angiomyolipoma in both kidneys or in solitary functioning kidneys, renal preservation is mandatory in order to avoid need for renal replacement therapy. Also recently approved drug Everolimus may be considered for patients not suitable for surgery particularly in tumour seen with tuberous sclerosis.

Magnetic resonance enterography as an evolving diagnostic tool in evaluating small bowel diseases

Amany Elbanna

Introduction: Magnetic Resonance Imaging of the Small Bowel (MR Enterography or MRE) is becoming increasingly popular as the first imaging modality for the diagnosis and follow-up of small bowel diseases. The inherent advantages of MRI including excellent soft tissue contrast, multi-planar capability and lack of ionizing radiation are well known. In addition, the use of luminal contrast agents in MRE has the added advantage of demonstrating the lumen and the wall directly, something not possible to achieve with conventional small bowel barium follow-through.

Aim: The aim of this work is to evaluate the role of recent MRI sequences and techniques in evaluation of small bowel disease.

Patients & Methods: The study population included 24 patients who were referred to multiple radiology centers by gastroenterologist for magnetic resonance enterography (MRE) for evaluation. The examination was done on 1.5 Tesla superconducting magnet MRI machines; Siemens Magnetom Avanto (Erlangen, Germany).

Results: All studied patients had small bowel lesions: 15 patients had neoplastic lesions (64%) and 9 patients had non-neoplastic lesions (36%). Among 15 neoplastic lesions, 12 were malignant and 3 were benign. The malignant cases were classified as follows; lymphoma (6 patients); adenocarcinoma (4 patients); GIST (1 patient) and carcinoid tumor (1 patient). Nine patients with non-neoplastic small bowel disease were classified as follows; seven patients had crohn's disease, one patient had chronic non-specific ileitis and one patient proved pathologically to be TB of small bowel. The final diagnosis was confirmed by endoscopic and pathological data and follow up.

Conclusions: MRE is accurate non-invasive modalities in assessing the intra-luminal, parietal and extra-luminal small bowel tumor without the need for ionizing radiation. MR signal appearances of the lesions combined with the contrast enhancement behavior and the characteristic of the stenosis can help in differentiating neoplastic from other non-neoplastic diseases of small bowel. It has great potential in investigating suspected and confirmed crohn's disease and other suspected small bowel pathologies. MR imaging enhancement patterns may reliably help discriminate between active and inactive crohn's disease.