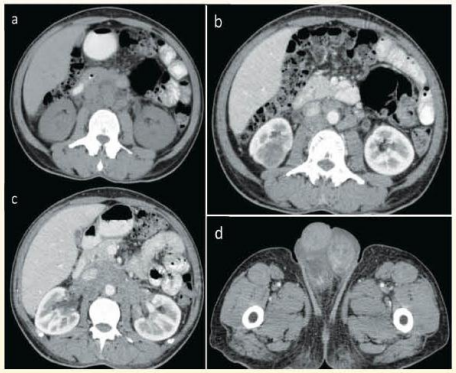
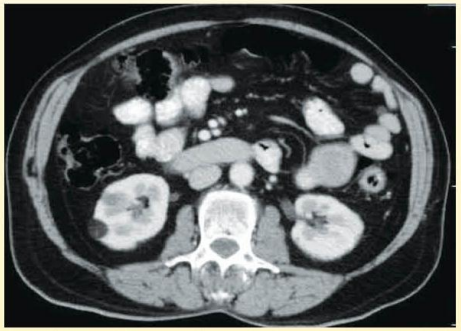
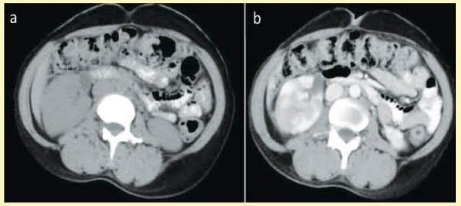


Case 9 *- Metastasis to the right kidney from the germ cell tumour of the left testis. (a) NCCT image showing isodense lesion in right kidney. (b) - Post contrast showing minimal enhancment. (c) - CECT image shoiwng retroperitoneal lymphadenopathy due to the primary leison. (d) - Section at the scrotal level showing heterogenously enhancing lesion in left testis.*



Case 10 *- Small Angiomyolipoma involving right kidney with fat density & enhancing focus within.*



Case 11 *- nephronia involving right kidney. (a) - NCCT showing bulky right kidney. (b) - Post contrast leison is shoing mild enhancement with striation at one place & il defined margins.*

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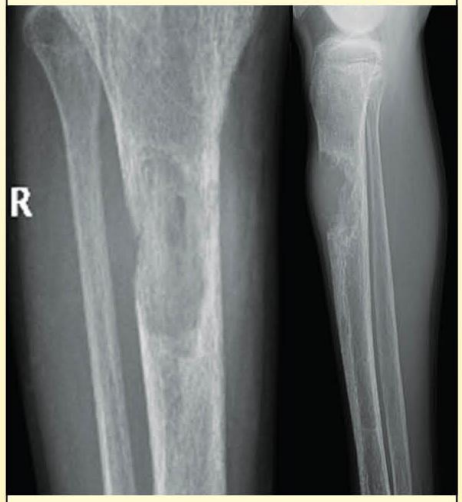
1. *Lebret T, Poulain JE, Molinie V, Herve JM, Denoux Y, Guth A, et al. Percutaneous core biopsy for renal masses: indications, accuracy and results. J. Urol. 2007;178(4 Pt 1):1184.*
2. *Charboneau JW, Hattery RR, Ernst 3rd EC, James EM, Williamson Jr B, Hartman GW. Spectrum of sonographic findings in 125 renal masses other than benign simple cyst. Am. J. Roentgenol. Am Roentgen Ray Soc; 1983;140(1):87-94.*
3. *Bosniak MA. The current radiological approach to renal cysts. Radiology. 1986;158(1):1-10.*
4. *Eble JN, Sauter G, Epstein JI, Sesterhenn IA. World Health Organization classification of tumours. 2004. p. 7.*

QUIZ

19/M - Pain and swelling



? Diagnosis

Email the answer to:
subbaraokakarla25@gmail.com

Previous quiz answser is
"Talocalcaneal coalition"

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Address for Correspondence : 300/1, Shaikpet, Toli Chowk, Hyderabad - 500 008. Tel. : 65888459, E-mail : krestvision@hotmail.com

FOR PRIVATE CIRCULATION

JUNE 2015

KREST VISION

(Kakarla Subbarao Radiological & Imaging Educational Sciences Trust)

A NEWS LETTER OF IRIA AP BRANCH

PATRON
Prof. Kakarla Subbarao

EDITOR
Dr. N. Kavitha

Message from President's Desk

Many hearty congratulations to the office bearers of IRIA - Telangana State Chapter. I personally congratulate Dr Narasinga Reddy for leading the group. Dr K Prabhakar Reddy deserves kudos for conducting the AMS 2015 conference with the support of MSS. We also congratulate him for being unanimously elected for AOSOR.

As I reflect on the formation of KREST, when it started with high ideals and objectives and created an infrastructure, the co-operation of my colleagues and the enthusiasm of post graduates was on the high. However, as I involute age-wise, the organization also shows signs of senescency and apathy. Volunteers with great enthusiasm and dedication are urgently needed to sustain the growth of KREST. Dr N Kavitha is helping a great deal and is the sole person taking the challenge. However, she needs young helping hands. We also thank Prof B Rama Subba Raidu for working hard to develop radiology museum at KREST.

We thank Padmasri Awardee Dr S Saharia for delivering the "KREST Oration" for the year 2015. We also congratulate Dr Karuna of Osmania Medical College for being the topper in MD (Radiology) of 2014 batch for getting the KREST Gold Medal.

Wishing you all the best

Prof. Kakarla Subbarao

Indian Radiological & Imaging Association
Telangana State Chapter 2015 - 2016

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Dr. T. Narsinga Reddy

Vice Presidents
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Student Representative
Dr. Sreni S, Dr. Sandeep Reddy Cheguri,

Healthcare Industry Representative
Mr. D.V. Reddy

IRIA Academic events schedule for the year 2015-16

17th-19th July 2015	*H A R P (HYDERABAD ANNUAL RADIOLOGY PHYSICS)*
15th-16th AUGUST 2015	*GYAN P LAL IRIA CME - CHEST IMAGING (AOSOR-IRIA Conjoint Session)*
11th September 2015	*IRIA Monthly Meet*
10th-11th October 2015	*55th State Annual Conference, Hyderabad Indo-US Imaging Update-Abdominal & Neuro Imaging*
8th November 2015	*Reach Out Programme @ Warangal*
22th November 2015	*IRIA Medical Camp*
11th December 2015	*IRIA Monhtly Meet*
8th-10th January 2016	*REP- Resident Education Programme*
12th February 2016	*IRIA Monthly Meet*
11th March 2016	*IRIA Monthly Meet & AGM*

EVALUATION OF SOLITARY SOLID RENAL MASSES ON COMPUTED TOMOGRAPHY AND ITS CLINICAL AND HISTOPATHOLOGICAL CORRELATION

OBJECTIVE: *To evaluate the accuracy of CT in characterization and evaluation of solitary solid renal masses by comparing it with pathologic findings and staging renal masses wherever possible.*

MATERIALS AND METHODS: *The study was done in the department of Radiology and Imageology, Nizams Institute of Medical Sciences, Hyderabad. The study period was between June 2012 and June 2013. The study included 46 patients, which were referred for CT with clinical suspicion of renal mass, and patients with solid renal mass detected on ultrasonography. CT was done for the patients in NCCT, Corticomedullary and nephrographic phase. Patient demographic data, clinical symptoms, CT characteristics were recorded, and were compared with pathological findings. The CT was performed on 16 slice multidetector CT (PHILLIPS BRILLIANCE 16)*

INCLUSION CRITERIA

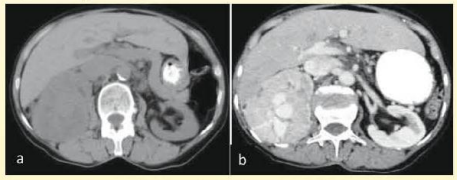
1. *Patients with solitary solid renal mass irrespective of age and sex*
2. *Both out patients and in patients were included.*

EXCLUSION CRITERIA

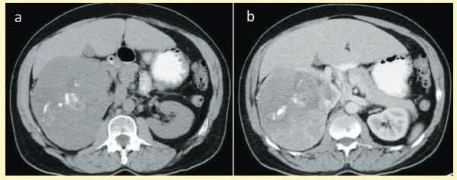
1. *Patients with two or more renal masses.*
2. *Patients with predominantly cystic renal mass.*
3. *Patients not willing to give the written consent.*
4. *Patients allergic to contrast media and altered renal parameters*

RESULTS: *Of the 46 solitary solid renal masses, 29(63%) were males and 17 (36.9%) were females. 40 (86.9%) cases were malignant and 06 (13%) were benign. RCC accounted 75% (n=30) of the malignant masses. Other renal masses encountered were 2 lymphoma, 2 metastasis, 1 transitional cell carcinoma, 4 Wilms tumour, 2 nephronia, 1 rhabdoid tumour and 4 AML. Of 46 renal masses, 10 (21.7%) cases were asymptomatic. Calcification was seen in 10(21.7%) cases and accounted for 33% of RCC. Malignant renal masses showed mean attenuation of 37.4±5.3 HU, 96.54 ±19.7 HU and 76.42±18.8 HU in the NCCT, CMP and NP respectively, whereas the benign lesions (nonfatty) showed mean attenuation of 36.7 HU, 63 HU and 57 HU in the NCCT, CMP and NP respectively. Mean size of RCC according to T1, T2, T3, and T4 stage were 4.27±1.2, 10.92±4.4, 9.36±3.4, 9.55 cm respectively. 25 (83.3%) RCC showed heterogenous enhancement, while five (16.6%) showed homogenous enhancement. Renal vein invasion and inferior vena caval extension was seen in 5(16.7%) and 3(10%) cases of RCC respectively. Clear cell carcinoma was the most common type (83%) of solid RCC, followed by papillary type (13%). Clear cell carcinoma showed more enhancement as compared to other subtypes, and enhancement is mostly in corticomedullary phase. CT overstaged T stage in 6 %(n=2) RCC. Sensitivity, specificity and accuracy of CT for lymph node status are 75%, 77.8%, 76.7% respectively.*

CONCLUSION: *CT enables a reliable detection and characterization of the solitary solid renal masses. Though most of them are malignant, few benign masses may present as solid mass. CT may be used to differentiate subtypes of RCC based on enhancement. CT is an accurate method for preoperative staging of RCC, however there is a possibility of overstaging the T stage, and involvement of lymph nodes by tumour is still difficult to predict.*

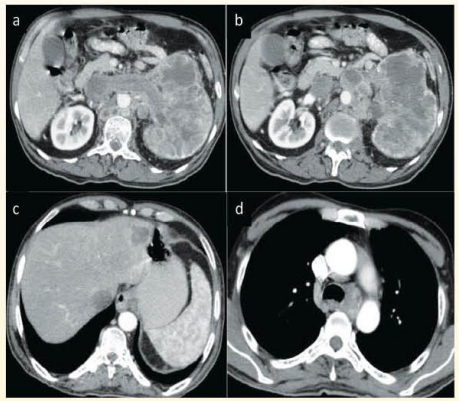


Case 1 *- Clear cell variant of RCC of right kidney. (a) - NCCT (b) Post contrast in corticomedullary phase shwoing moderate enhancement.*

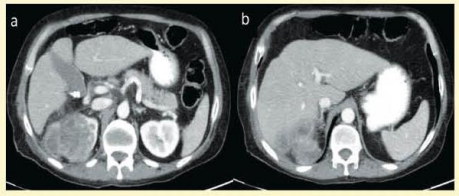


Case 2 *- Chromophobe variant of RCC showing central calcification. (a) - NCCT (b) Post contrast shwoing heterogenous enhancement.*

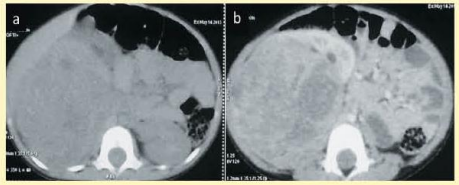
Dr Harsha Vardhana K R *(Asst. prof), Dr. Sarode Ashish Govardhan (Lecturer), Dr Sujata Patnaik (Addl. Prof).*
Department of Radiology & Imageology, Nizam's Institute Of Medical Sciences, Panjagutta, Hyderabad, India.



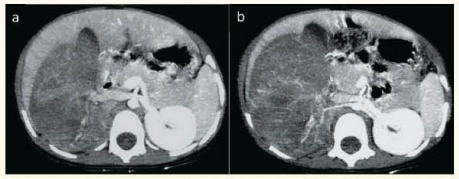
Case 3 *- RCC involving the entire left kidney diffusely, with heterogenous post contrast enhancement. (a) showing the solid mass showing heterogenous enhancement with renal vein and IVC involvement and lymph node involvement with heterogenous enhancement; (b) section showing retroperitoneal heterogeneously enhancing lymph nodes, (c) section showing retrohepatic IVC involvement and hepatic metastasis. (d) showing mediastinal lymph node involvement.*



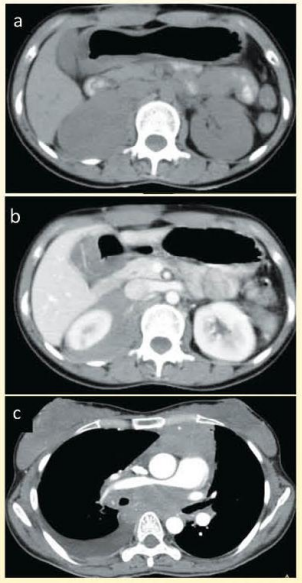
Case 4 *- RCC shoiwng (a) heterogernously enhancing mass lesion with perinephric involvement (b) - Upper sections showing involvement of segment VI of the Liver by local extension.*



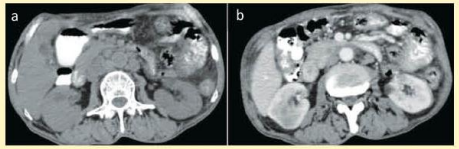
Case 5 *- Rhabdoid tumour of the right kidney. (a) NCCT; (b) post contrast scan showing heterogeneously enhancing large lesion from upper pole region. 6*



Case 6 *- Wilms tumour of the right kidney. (a), (b) Post contrast scan showing large heterogeneously enhancing lesion.*



Case 7 *- Lymphoma involving the right kidney with predominant perirenal involvment (type 4 Lymphoma). (a) - NCCT. (b) - Post contrast image. (c) - Mediastinal lymph nodal involvement.*



Case 8 *- Metastasis from carcinoma colon to the right kidney. (a) - NCCT image shows illdefined iosdense lesion in th eright kidney. (b) - Post contrast phase showing heterogenous enhancment with ill defined margins.*

Special Acknowledgements to the management & staff of "International school" and Mr Vaidesh.H for their continuous support in all the KREST events.