Atherosclerosis is a ‘systemic disease’ causing frequently associated coronary and peripheral vascular problems in the same patient. Renal artery stenosis (RAS) is a frequent association in patients with CAD.

A study was undertaken to determine the prevalence of angiographically significant RAS in patient population referred for diagnostic coronary angiography and identify high risk subsets.

Over an 8 months period 469 (402 males and 67 females) consecutive patients who underwent coronary angiography for suspected CAD were subjected to routine driveby renal angiography. After evaluating the coronary arteries and LV function, the catheter was placed near the origin of renal arteries and 20 ml of contrast was injected (aortic flush). Angiographically significant CAD (> 70% stenosis) was present in 360 patients (76.7%); A total of 66 patients had RAS who underwent coronary angiogram. Thirty six patients had significant RAS (more than 70% stenosis). Thirty patients had insignificant RAS. Of the 36 patients with significant RAS, 33 had CAD and 3 patients had normal coronaries.

RAS was found associated with Hypertension (61.1%) / Diabetes Mellitus (44%) / Dyslipidemia (25%) / Renal insufficiency (19.4%) / smoking 38.9%.

All lesions were atherosclerotic. Thirty two patients had unilateral lesions and 4 patients had bilateral lesions. Twenty eight lesions were ostial and 8 were shaft lesions.

Atherosclerotic renal artery stenosis is the most common cause of secondary hypertension, being present in approximately 4% of the hypertensive population. In patients undergoing coronary angiography for suspected CAD, the incidence of RAS ranges from 15% - 22%.

RAS is a particularly relevant comorbid condition in cardiological practice, since the risk factors for CAD and RAS are identical. Cardiologists are frequently confronted with ‘Cardio renal’ problems and have the expertise necessary for stenting of renal artery lesions with equipments adapted from coronary artery interventions.

Drive by renal angiography is recommended in patient’s undergoing invasive coronary or peripheral angiography who are at increased risk of RAS such as severe atherosclerosis, resistant hypertension, unexplained renal dysfunction, and flash pulmonary oedema. Although there is debate concerning screening methods as regards cost effectiveness, safety, availability and accuracy, a distinct advantage of angiography, is that, if the stenosis is found to be significant, it can be addressed by renal angioplasty/stenting, avoiding the need and discomfort of another arterial puncture at a later date.

Maurricio G. Cohen et al studied 843 patients who underwent abdominal aortography during cardiac catheterization and formulated a simple predictive score for the probability of RAS using age, female sex, hypertension, number of cardiovascular drugs, peripheral vascular disease, creatinine, and 3-vessel Coronary artery disease or previous Coronary Artery Bypass Graft surgery. A low score (< 5) correlated with a probability of significant RAS of 0.6% and a high score of (> 18) correlated with a probability of 62.1%.

In our study the highest incidence of RAS was found in patients with triple vessel coronary artery disease. The major risk factor was systemic hypertension. It is interesting to note that about 4.2% of our patients with normal coronaries had significant RAS and all these patients were hypertensives.

Prevalence of renal artery stenosis is high and it is preferable to do a renal angiography in patients undergoing coronary angiography for suspected CAD especially if they are hypertensive and have evidence of renal insufficiency. It is simple, adds no extra cost or lab time.

I Sathyamurthy, K Jayanthi, K Subramanany, P Ramachandran, R Mao
Department of Cardiology, Apollo Hospitals, Chennai - 600 006.

REFERENCE

Incidence of Renal Artery Stenosis in Patients Undergoing Coronary Angiography

Sir,

Atherosclerotic Coronary artery disease (CAD) is known to be associated with atherosclerosis in cerebrovascular, peripheral and renal arteries. There are compelling reasons for Cardiologists to undertake a more global approach to patients with CAD. Atherosclerosis is a ‘systemic disease’ causing frequently associated coronary and peripheral vascular problems in the same patient. Renal artery stenosis (RAS) is a frequent association in patients with CAD.

A study was undertaken to determine the prevalence of angiographically significant RAS in patient population referred for diagnostic coronary angiography and identify high risk subsets.

Over an 8 months period 469 (402 males and 67 females) consecutive patients who underwent coronary angiography for suspected CAD were subjected to routine driveby renal angiography. After evaluating the coronary arteries and LV function, the catheter was placed near the origin of renal arteries and 20 ml of contrast was injected (aortic flush). Angiographically significant CAD (> 70% stenosis) was present in 360 patients (76.7%); A total of 66 patients had RAS who underwent coronary angiogram. Thirty six patients had significant RAS (more than 70% stenosis). Thirty patients had insignificant RAS. Of the 36 patients with significant RAS, 33 had CAD and 3 patients had normal coronaries.

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Drive by renal angiography is recommended in patient’s undergoing invasive coronary or peripheral angiography who are at increased risk of RAS such as severe atherosclerosis, resistant hypertension, unexplained renal dysfunction, and flash pulmonary oedema. Although there is debate concerning screening methods as regards cost effectiveness, safety, availability and accuracy, a distinct advantage of angiography, is that, if the stenosis is found to be significant, it can be addressed by renal angioplasty/stenting, avoiding the need and discomfort of another arterial puncture at a later date.

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REFERENCES


**Announcement**

SAARC Diabetes Conference (Theme: Obesity and Diabetes) on 3 – 4 November 2007.
Venue: Le Meridien, New Delhi – 110 001.
For further details contact: Dr. (Col.) Surender Kumar, Organising Secretary, Room no. 9-A, Department of Endocrinology and Metabolism, Sir Ganga Ram Hospital, New Delhi – 110060.
Ph: 91-11- 4225 1551; Fax: 91-11-2586 1002
E-mail: sgrhDMcon@yahoo.co.in, Website: www.sgrhDMcon.com

**Registration Fee**
Upto 30\textsuperscript{th} September Rs. 4000/-
1\textsuperscript{st} October onward registration Rs. 5000/-
(Please send DD in favour of “Sir Ganga Ram Hospital”)
Registration form can also be downloaded from www.sgrhDMcon.com

**Note:** Kindly register early. Limited registration

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**Announcement**

**Step – by – Step**

Diabetes Foot Care Training Workshop on October 6\textsuperscript{th}, 7\textsuperscript{th}, 2007 at Nagpur.
For application forms contact: Dr. Sharad Pendsey, Project Chairman, Diabetes Clinic & Research Centre