Falling after CABG

Sir,

Pituitary infarction following Coronary Artery Bypass Grafting (CABG) is rare but may have serious debilitating effects. We present two cases of panhypopituitarism after CABG.

BR, 56 years man who presented with repeated falls following CABG – done eight months back. Of late he was pleasantly surprised to see wonderfully good glycaemic control, which he was struggling to get before. His BMI was 23, heart was in sinus rhythm (74/min), systolic blood pressure dropped from 110 to 90 mm Hg on standing. Systemic examination was unremarkable. Routine blood check including complete haemogram, liver and renal function, calcium profile and lipid were normal. He had hyponatraemia [serum Sodium 127 (normal 135-144) mmol/L] with normal serum Potassium [4.1 (3.8-5.2) mmol/L]. This led us to look for serum Cortisol [8am 90 (N-240 -510) nmol/L] and Thyroid function {TSH-0.1 (N-0.5-4.5) mIU/L, free T4-0.7 (N- 0.8-2.1) ng/dL}. Further endocrine work up showed low Testosterone {1.1 (N- 3-10) ng/ml} and disproportionately low LH {2.3 (N- 1-8) miu/ml} with normal Prolactin and failure of Cortisol to rise with ACTH stimulation. MR scan of the Pituitary showed atrophic gland making the diagnosis of complete anterior hypopituitarism (feature of secondary hypocortisolism, secondary hypothyroidism and secondary hypogonadism). Increased awareness of hypopituitarism after CABG will lead to endocrine therapy not being considered.

Our second patient was a 60-year-old man presented one month after CABG with repeated falls and sternal wound infection. Physical examination revealed postural hypotension. After CABG his insulin requirements were coming down. Investigations revealed low Sodium, normal Potassium (115 meq/L and 4.3 meq/L respectively) and low 8am serum Cortisol (113 nmol/L). Further endocrine workup revealed features of secondary hypothyroidism and hypogonadism (TSH 5.1 miu/l, free T4 1.2 ng/dl, LH 10.7 miu/l and Testosterone 2.4 ng/dl). MR scan of pituitary revealed small pituitary. He was started with Hydrocortisone, Thyroxine (50 mcg/day) orally and monthly injection of Testosterone with wonderful subjective and objective improvement.

Pituitary infarction, apoplexy and hypopituitarism following cardiac surgery, although rare have been reported earlier. Pituitary infarction probably arises secondary to the major haemodynamic changes, which occur during CABG with extracorporeal circulation. These include ischaemia, haemorrhage, edema and positive pressure ventilation. Both our cases our a subtle presentation of anterior hypopituitarism (feature of secondary hypocortisolism, secondary hypothyroidism and secondary hypogonadism). Increased awareness of hypopituitarism after CABG will lead to endocrine therapy.
A Focus Group Study Among Type 2 Diabetic Subjects

Sir,

A person with diabetes has to cope with many lifestyle changes. In this study, focus group sessions are employed to assess type 2 subjects’ perceptions, affect and family support. It is a special type of group in terms of purpose, size, composition and procedures. The aim of this study is to know how the diabetic subjects reacted to diagnosis and their lifestyle changes.

Anderson et al.,\(^1\) reported that focus group was found as a useful means for identifying issues in diabetes care. Previous studies\(^2-3\) have used focus groups for exploring patient education, dietary management, psychosocial issues and barriers to control in the management of diabetes.

The sample comprised of 154 type 2 subjects having diabetes for duration of one year or longer without complications. Purposive sampling method was used. The size of each heterogeneous group ranged from 4 - 8 members and a total of 25 groups participated. Two moderators acted as facilitators. The discussions were recorded in an audio tape recorder.

Content analysis of the taped messages was carried out. The tape-based approach relied on listening to the tape recording content of each focus group and then developing an abridged transcript of the relevant and useful portions of the discussion. Frequency of critical words and phrases were counted. These frequencies were categorized as themes and percentages were calculated based on the frequency of themes. Four themes were identified:

1) Initial reactions to diagnosis
2) Adherence to diet regimen
3) Adherence to exercise regimen
4) Extent of family support.

One hundred eighteen responses represented how the subjects felt when they were diagnosed as having diabetes. There were 52 no worry responses and 76 responses represented negative feelings. Out of the 76 responses, worry was expressed (28.9%), followed by fear (25%), shock (23.7%), depression (11.8%) and denial (10.5%). With regard to the exercise and diet regimen, 83 responses (57.2%) related to adherence to regular exercise, 116 (81.7%) of the responses pointed towards adherence to the prescribed diet pattern and 26 responses (18.3%) indicated lack of adherence to the diet plan. 110 responses (93.2%) indicated family support and 8 responses (6.8%) connoted no family support. Seventy one reasons were reported for non-adherence to the exercise regimen. Non-adherence was due to the nature of occupation (38%); followed by household work (35.2%), bodyache (18.3%) and laziness (8.5%).

The data brought out four primary themes into focus. They are initial reactions during diagnosis, adherence to diet and exercise and role of family support in diabetes management.

At initial diagnosis, negative feelings of worry, fear and shock were more commonly felt than depression and denial. Subjects were more compliant to the prescribed diet plan than to regular exercise program. The reasons for their non-adherence were attributed to lack of time due to the nature of occupation and household work. However the present study did not bring out reasons for non-adherence to diet regimen. 93.2% responses indicated that subjects received family support. Hence this suggests the significant role of family members in the subjects’ management and adherence to treatment, which cannot be underestimated. In India the concept of ‘family’ remains as a dynamic entity and it has a major impact on the individual.

Through this study, the subjects’ inner feelings and perceptions were explored more candidly and spontaneously unlike through standard interview schedules. The data generated on psychosocial problems encountered by the subjects, can be utilized to develop a psychometric tool for an in-depth study.

REFERENCES


**Adult Onset Still’s Disease**

Sir,

Adult Onset Still’s Disease (AOSD) was reported first by Baywaters in 1976 with clinical features identical to those of Juvenile Rheumatoid Arthritis (JRA).

Studies from France, Japan and India comparing and analyzing clinical features, course and prognosis of JRA and AOSD are basically identical. The pathogenesis and treatment are also the same. It seems therefore reasonable to consider them as a single distinct entity irrespective of age of onset and use a single nosological term viz. Still’s disease.

AOSD is uncommon and even less frequently reported. About 30 cases have been reported from Northern India. There are no reports from the south and over 300 cases have been reported in world literature.

Here is a fairly typical case of Still’s disease. A 19 year old boy presented with 12 days history of sore throat, high fever with rigors and spikes, bodyache, pain in joints and erythematous rash all over the trunk which was blanching on pressure. Rash was prominent with spikes of fever and almost disappeared with fall in temperature. On examination he was found to be febrile with non-itching macular erythematous rash on the trunk. He had arthralgia of left hip, left knee and right elbow. Inguinal glands were minimally enlarged and not-tender.

Serial laboratory tests revealed rise in WBC count from 8700 to 13000/cmm, neutrophils from 69% to 84%, ESR from 15 to 108 normal platelet count and hemoglobin level. Malaria, dengue, infectious mononucleosis, typhoid fever, HIV infection and syphilis were ruled out on the basis of laboratory tests. CXR and abdominal ultrasound were normal. CT abdomen showed mild splenomegaly. Blood cultures were sterile. Rheumatoid factor, ANA, C-ANCA and P-ANCA tests were negative. LE cells were not found in blood. Aspiration and trephine biopsy examination of bone marrow showed mild myeloid hyperplasia and increased iron stores. ASO titer was negative CRP was 96 mg/L (1:16 positive) LDH was 477 IU/L (N=109-193). SGOT was raised. Bilateral lymphnode biopsies showed reactive hyperplasia with no evidence of malignancy. Serum ferritin level was 16887.82 mg/L (N=18.7 to 323 mg/L). Hyperferritinaemia is a powerful marker of AOSD.

This costly and time consuming work up to exclude infections, seropositive autoimmune disorders and certain malignancies may be obviated if a proposed new set of (AOSD) criteria suggested by Fautrel B et al (Table 1) and the earlier preliminary criteria proposed by Yamaguchi M et al (Table 2) are considered first.

| Table 1 |
|-----------------|-----------------|
| **Major Criteria** | **Minor Criteria** |
| Spiking fever ≥ 39°C | Maculopapular rash |
| Arthralgia | Leucocytosis ≥ 10,000/mm³ |
| Transient erythema | Glycosylated ferritin ≥ 20% |
| Pharyngitis | |
| Polymorphs ≥ 80% | |
| Presence of 4 or more major criteria or 3 major + 2 minor criteria have 80.6% sensitivity and 98.5% specificity |

| Table 2 |
|-----------------|-----------------|
| **Major Criteria** | **Minor Criteria** |
| 1. Fever > 39°C or higher lasting 1 week or more | 1. Sore throat |
| 2. Arthralgia | 2. Lymphadenopathy and or splenomegaly |
| 3. Typical macular evanescent rash | 3. Liver dysfunction |
| 4. Leucocytosis (10,000/cmm) with 80% or more granulocytes | 4. Negative RA and ANA |
| Presence of total of 5 criteria with 2 or more major criteria have 96.2% sensitivity and 92.1% specificity. |

**REFERENCES**


**Renal Failure and Neuromuscular Weakness in Cleistanthus collinus Poisoning**

Sir,

The case report of *Cleistanthus collinus* poisoning by Benjamin SPE et al in September, 2006 issue of JAPI was very informative. One of our patients, who ingested the extract of *Cleistanthus collinus* leaves, had renal failure and neuromuscular weakness at presentation. In animal models, it has been demonstrated that the leaf extract markedly inhibited muscle contractions by reducing excitability of the nerve and muscle membranes and also blocked neuromuscular transmission. But these are without the hypokalemic milieu seen in...
actual poisoning and the concentrations of the leaf extract used may not be comparable to the actual concentration seen in human cases. Benjamin SPE et al have identified distal renal tubular acidosis (dRTA) as one of the manifestations. Hypokalemic paralysis can occur in dRTA. Hypokalemia, a well known cause of rhabdomyolysis, can cause respiratory paralysis (often irreversible), myoglobinuric renal failure and not uncommonly, death. The dRTA is probably one of the explanations for the renal failure and neuromuscular weakness seen in our patient in addition to the direct effect of the poison on the nerve and muscle membranes and neuromuscular transmission. These possibilities need to be explored further.

S Eswarappa
Specialist Physician, Royal Oman Police Hospital, PO Box 325, Postal Code 116, Muscat, Sultanate of Oman.
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Reply from Author
Sir,

It is possible for distal renal tubular acidosis (dRTA) to cause hypokalemia induced rhabdomyolysis and myoglobinuric renal failure. Such a sequence of events has been reported in dRTA of diverse etiologies viz., Sjögren’s syndrome, Chinese herbal nephropathy, chronic glue sniffing, congenital dRTA and idiopathic dRTA. The combination of neuromuscular weakness, renal failure and raised total creatinine kinase (CK) levels in the setting of dRTA certainly points to the presence of rhabdomyolysis and myoglobinuria in Cleistanthus collinus poisoning. However, probably due to the high mortality associated with ARDS and shock, it has so far not been possible to identify rhabdomyolysis.

Rhabdomyolysis should be confirmed by doing serial creatinine kinase levels (will be above 10,000 U/L), analysing urine for myoglobin and by muscle biopsy. Before obtaining these data it may be too early to extrapolate animal experiments on neuromuscular transmission or nerve conduction to human cases.

Our patient had moderate elevations (883 U/L) in total CK (he did not have neuromuscular weakness or renal failure) probably implying that rhabdomyolysis and myoglobinuria were averted by correction of hypokalemia and acidosis.

SPE Benjamin
Consultant Physician, C. S. I. Kalyani Multispeciality Hospital, 15, Dr. Radhakrishnan Salai, Mylapore, Chennai 600 004.
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Erratum
Medical Philately published in October 2006 issue of JAPI on page 811 (J Assoc Physicians India 2006; 54 : 811) Para 3, Line 1 & 2 should be read as ‘Larry’s imagination in planning for the health of the soldiers, and practical skill in the care of the wounded in the field hospital, equaled, the genius and strategies of Napolean. Emperor utilized his special talents in planning, for several campaigns’.

Editor, JAPI