

from the medial border of the right atrium, extending through the tricuspid valve and into the right ventricle with infiltration of the myocardium (Figure 3). Histology demonstrated squamous cell carcinoma infiltrating the myocardium. The histological appearances were similar to those of the patient's previous tongue tumour (Figure 4), confirming a diagnosis of a cardiac metastasis from a squamous cell carcinoma of the tongue.

Post-mortem studies show cardiac metastases in up to 25% of patients who have died from malignancy, however, ante-mortem presentation is rare. The most common tumours metastasising to the heart are carcinomas of the lung, breast and oesophagus, malignant lymphoma, leukaemia and malignant melanoma¹. Cardiac metastases usually present in patients with advanced widespread tumour disease². Treatment is therefore usually palliative and the prognosis is poor¹. In the present case an extensive cardiac metastasis was observed in the absence of clinically detectable local recurrence, lymphadenopathy or metastases elsewhere. Although such cases of cardiac metastasis are uncommon, similar cases have been described in the literature³. This diagnosis should therefore be considered in patients with a history of malignancy and new cardiovascular symptoms of uncertain aetiology.

The authors have no conflict of interest

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REFERENCES

- 1 Reynen K, Kockeritz U, Strasser RH. Metastases to the heart. *Ann Oncol.* 2004;**15**(3): 375-81.
- 2 Rivkin A, Meara JG, Li KK, Potter C, Wenokur R. Squamous cell metastasis from the tongue to the myocardium presenting as pericardial effusion. *Otolaryngol Head Neck Surg.* 1999;**120**(4): 593-5.
- 3 Hans S, Chauvet D, Sadoughi B, Brasnu DF. Cardiac metastasis after squamous cell carcinoma of the base of tongue. *Am J Otolaryngol.* 2009;**30**(3): 206-8.

RELIGIOUS BELIEFS AND ATTITUDES TOWARD SUICIDE IN A COHORT OF MEDICAL STUDENTS AT QUEEN'S UNIVERSITY BELFAST.

Editor,

In 2002-2003 fourth year medical students at Queen's University Belfast were invited to participate in a study of their religious beliefs and attitudes toward suicide. The study proposal was approved by the local Research Ethics Committee. Data was collected using the Royal Free Questionnaire for Spiritual and Religious Beliefs (Self-Report

Version)¹ and an abbreviated form of the Suicide Opinion Questionnaire (8 factor model)². The questionnaires were offered to all 4th year medical students at a lecture during their undergraduate psychiatric placement; 152 were returned out of a year group of 180. Our statistical analysis of the results from the Suicide Opinion Questionnaire showed a lack of internal consistency and therefore much of the data was unusable. Further review of the literature showed that other authors have raised questions about the statistical reliability of the Suicide Opinion Questionnaire (SOQ), particularly regarding factor stability.³ However, some of the data is of relevance to factors influencing an important aspect of clinical practice. Demographic and spiritual information about the cohort are listed in Table 1.

TABLE 1.

DEMOGRAPHIC AND SPIRITUAL INFORMATION FROM 4TH YEAR MEDICAL STUDENTS AT Q.U.B. (2002-2003).

n=152		
Age range		21-25 (mean 22)
Gender	Male	43%
	Female	57%
Religion	Religious and/or spiritual	93%
	Neither religious nor spiritual	7%
	Roman Catholic	44%
	Protestant	43%
	Muslim	4%
	Buddhist	3%
Religious Activity	Prays alone	80%
	Attendance at religious ceremony	57%
	Religious study alone	53%

Some of the SOQ (Likert scale) data from the cohort was suitable for statistical analysis. Eight separate questions from the abbreviated SOQ formed a domain which measured belief about a right-to-die (Cronbach's Alpha 0.79). The strength of belief in a right-to-die was then correlated against strength of religious belief (0-10 scale). This showed a moderately negative correlation i.e. a strong belief in a powerful deity that can influence what happens in one's daily life tended to be associated with a belief that one does not have a right-to-die (p value <0.0001, R -0.43).

We can therefore see that this cohort of 2002-2003 fourth year medical students in Belfast had slightly more females than males with nearly 90% indicating affiliation to the Roman Catholic or Protestant churches. A majority engaged in religious activity of some kind. Of particular contemporary interest is a moderate correlation between a belief in a powerful deity and the belief that one does not have the right to end one's own life.

The authors wish to acknowledge the help of Mr Michael Stevenson and Ms Rejina Verghis (Clinical Research Support Centre) with the statistical analysis.

J.C. Nelson, Specialist Registrar in Psychiatry, A. Collins, Consultant Psychiatrist, T. Foster, Consultant Psychiatrist, S.J. Cooper, Emeritus Professor of Psychiatry.

The authors have no conflict of Interest

REFERENCES

1. King M, Speck P, Thomas A. The Royal Free interview for spiritual and religious beliefs: development and validation of a self-report version. *Psychol Med.* 2001; **31(6)**:1015-23.
2. Domino G, Macgregor JC, Hannah MT. Collegiate attitudes toward suicide: New Zealand and United States. *Omega: J Death Dying.* 1989; **19**:351-64.
3. Rogers JR, DeShon RP. Cross-validation of the five-factor interpretive model of the suicide opinion questionnaire. *Suicide Life Threat Behav.* 1995; **25(2)**: 305-9.

Key Words: Suicide, Religion, Medical Student, Beliefs, Demographics

PROXIMITY PREDICTS REFERRAL TO THE TERTIARY PAEDIATRIC CARDIOLOGY SERVICE

Editor,

In the present era, demands on the specialist services provided in paediatric cardiology centres have increased dramatically^{1,2}. We aimed to determine the frequency and basis for inpatient consultation with the paediatric cardiology service in a tertiary teaching hospital.

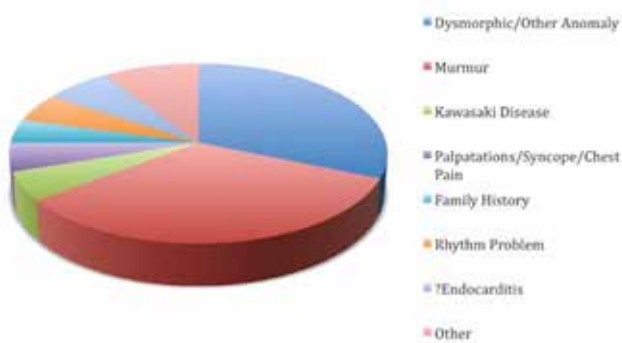


Fig 1. Indications for referral to Paediatric Cardiology.

Information regarding new patient referral activity in the Department of Paediatric Cardiology, RBHSC was collected prospectively Monday to Friday from 9am to 5pm during a 3-month period using a proforma

Ninety-six new patient referrals were made, 77 were formally reviewed. The mean age at referral was 2 years (range birth to 17 years). The most common reasons for referral were identification of a murmur (33.3%) or for assessment of a condition likely to be associated with congenital heart disease



Fig 2. Paediatric Cardiology diagnoses.

(31.3%). Reasons for referral are illustrated in Figure 1. Almost two thirds (65.6%) of referrals were made from the RBHSC site, significantly more than any other peripheral hospital site ($p < 0.05$). However, there were no significant differences in the reason for referral between RBHSC and non-RBHSC sites (Chi-squared 0.21).

Of all the patients formally reviewed ($n = 77$), only five (7%) had major congenital heart disease (CHD) with diagnoses of hypoplastic left heart x2, coarctation, pulmonary atresia VSD and a large primum ASD. Eighteen patients (23%) had minor CHD not likely to require any intervention (e.g. small muscular VSD), 10% had features of normal transition from foetal circulation such as patent ductus arteriosus (PDA). Diagnoses reached are shown in Figure 2. A large number of patients (66.7%) were referred with incomplete first line investigations (i.e. CXR, ECG, measurement of saturations and blood pressure).

Triaging and managing of referrals represents a significant burden for junior medical staff on the paediatric cardiology ward and can potentially impact on level of care provided to inpatients. Proximity to the service appears to inappropriately increase number of referrals made although there is no difference in actual reason for referral. Similar to the current literature, few referrals yield significant pathology and the most frequent reason for referral remains evaluation of a murmur^{2,3}. Limited information available at time of referral makes it difficult to prioritise the patient in a proper fashion and may make the whole process more time consuming. We believe there is a requirement for further education of paediatric trainees regarding appropriate work-up of patients and which conditions require inpatient consultation.

The authors have no conflict of interest

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REFERENCES

1. Wagstaff MH, Rigby ML, Redington AN. Increasing workload and changing referral patterns in paediatric cardiology outreach clinics: implications for consultant staffing. *Heart* 1998; **79(3)**:223-4
2. Murugan SJ, Thomson J, Parsons, JM, Dickinson DF, Blackburn ME, Gibbs JL. New outpatient referrals to a tertiary paediatric cardiac centre: evidence of increasing workload and evolving patterns of referral. *Cardiol Young.* 2005; **15(1)**: 43-6
3. Geggel RL. Conditions leading to pediatric cardiology consultation in a tertiary academic hospital. *Pediatrics.* 2004; **114(4)**:e409-417

POTENTIAL RISK OF UNIDIRECTIONAL ROTATION WHEN ADVANCING CENTRAL VENOUS CATHETERS.

Editor

We report a case of a polytrauma victim who required central