Correspondence

Visceral leishmaniasis complicated by haemophagocytosis

A 23-year-old man, resident of Himachal Pradesh, presented with moderate grade fever (with night sweats) for 11 months, which had increased in intensity for 1 month. He also had loose stools, loss of appetite and loss of weight (10 kg). He was on antitubercular treatment for 9 months, which had been modified for the past 4 months because of raised serum transaminases. Low blood counts had been detected a few months ago and a bone marrow examination done elsewhere was reported as megaloblastosis for which he had received vitamin supplements without benefit. He was a smoker and used to drink about 50 ml of alcohol daily. On examination, he was pale, had high-grade fever and mild ascites but the rest of the systemic examination was normal. There was no hepatosplenomegaly or lymphadenopathy. Investigations revealed pancytopenia (haemoglobin 7.4 g/dl, total leucocyte count 600/cmm and platelet count 85 000/cmm), hypoalbuminaemia and elevated transaminases (alanine aminotransferase [ALT] 145.9 IU/L, aspartate aminotransferase [AST] 67.5 IU/L). Contrast-enhanced computed tomography (CECT) chest and abdomen showed bilateral patchy apical fibrosis suggestive of old tuberculosis with caecal and ileal wall thickening. Colonoscopy showed an ulcer in the terminal ileum, which on biopsy showed mild lymphoplasmacytic infiltrates and oedema. He was started on broad-spectrum antibiotics. However, he continued to have high-grade intermittent fever up to 40 °C. Multiple blood and urine cultures were sterile and malarial parasite microscopy and antigen test were negative. Ascitic fluid was transudative, with sterile cultures. Bone marrow aspiration showed Leishman–Donovan (LD) bodies (Fig. 1); and serology for RK-39 antigen was positive. He had elevated serum triglycerides and ferritin, low fibrinogen (serum triglycerides 207 mg/dl, serum ferritin 3290 ng/ml, serum fibrinogen 1.78 g/dl). A diagnosis of visceral leishmaniasis with haemophagocytic syndrome was made, and amphotericin B 1 mg/kg was started. He became afebrile, the blood counts showed improvement (haemoglobin 7.4 g/dl, total leucocyte count 2800/cmm and platelet count 86 000 /cmm) and the transaminases decreased ALT/AST 25.9 IU/L, 22.6 IU/L). However, 5 days later, his dyspnoea worsened and chest X-ray showed left-sided pneumonia. Despite broad-spectrum antibiotics, he had progressive respiratory distress, to which he succumbed. A post-mortem liver biopsy confirmed haemophagocytosis (Fig. 2).

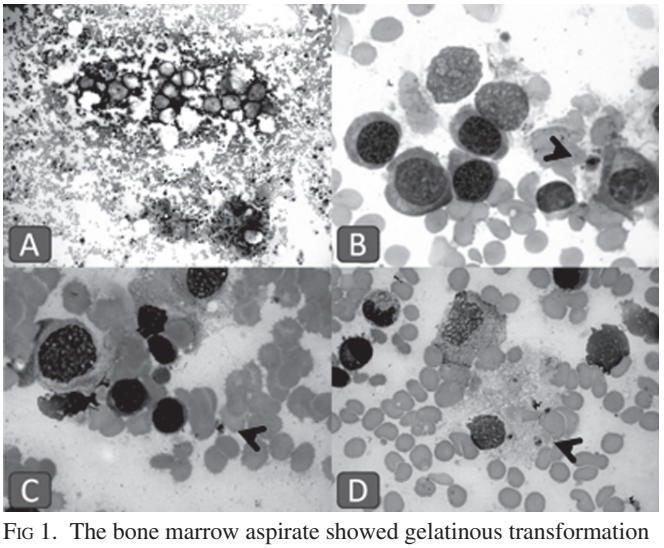

FIG 1. The bone marrow aspirate showed gelatinous transformation (A). Leishman–Donovan bodies were seen (arrowheads in B, C and D) along with a prominence of plasma cells and histiocytes (A: MGG-Giemsa, ×400; B–D: MGG-Giemsa, ×1000)

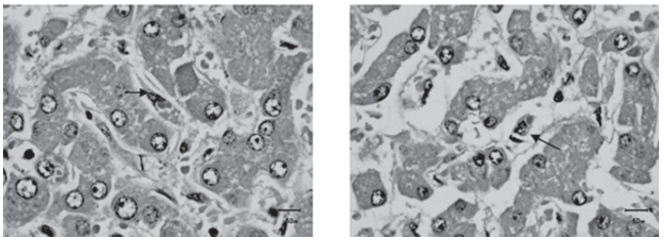

FIG 2. Post-mortem liver biopsy showing prominent erythrophagocytosis by the Kupffer cells (arrowheads)

Although, 90% cases of visceral leishmaniasis (VL) in India are from Bihar, other endemic hot spots are emerging—the district of Kinnaur (along Sutlej valley) in Himachal Pradesh (residence of our patient) being one such.[1] VL associated with clinically important haemophagocytosis is rare. A review published in 2008 reported only 56 cases, a majority being children.[2] They noted that the first bone marrow often failed to establish the presence of LD bodies (in two-third) and haemophagocytic lymphohistiocytosis (HLH) (in one-third). This was similar to a series of 12 cases from France.[3] In our patient too, the first bone marrow aspiration (done elsewhere) did not show either, and the bone marrow at our institution failed to show haemophagocytosis. High-grade fever may be an important clue as found in the series from France.[3] In addition, ascites (present in our patient), jaundice, coagulopathy (present in our patient) and hypofibrinogenaemia (present in our patient) have been reported to be clues to the presence of haemophagocytic syndrome in VL.[2] Although most patients have hepatosplenomegaly, absence of organomegaly in patients with VL (as in our patient) has been reported, mostly in HIV positive patients.[4] The mere presence of haemophagocytosis is not synonymous with the syndrome. Indeed, it is reported that 46% of patients of VL may have some evidence of haemophagocytosis in the marrow.[5] The treatment for VL with haemophagocytic syndrome is not uniformly defined. However, infection-associated HLH resolves with treatment of infection alone,[6] and our patient too had responded to initial amphotericin therapy. Our patient is similar to a previous report in a child from India,[7] in that both hailed from mountainous regions (an emerging hot spot of VL) and thus diagnosis was missed for a long time, which may be a contributing factor for the haemophagocytic syndrome.

To conclude, we have described a patient with VL-associated haemophagocytic syndrome and highlighted the need to recognize this entity early.

REFERENCES

1 Raina S, Mahesh DM, Kaul R, Satindera KS, Gupta D, Sharma A, *et al*. A new focus of visceral leishmaniasis in the Himalayas, India. *J Vector Borne Dis* 2009;**46:**303–6.
2 Rajagopala S, Dutta U, Chandra KS, Bhatia P, Varma N, Kochhar R. Visceral leishmaniasis associated hemophagocytic lymphohistiocytosis—case report and systematic review. *J Infect* 2008;**56:**381–8.

3 Gagnaire MH, Galambrun C, Stephan JL. Hemophagocytic syndrome: A misleading complication of visceral leishmaniasis in children—a series of 12 cases. *Pediatrics* 2000;**106:**E58.
4 Parija SC, Karki P, Koirala S. Cases of kala-azar without any hepatosplenomegaly. *Trop Doct* 2000;**30:**187–8.
5 Varma N, Naseem S. Hematologic changes in visceral leishmaniasis/kala azar. *Indian J Hematol Blood Transfus* 2010;**26:**78–82.
6 Rouphael NG, Talati NJ, Vaughan C, Cunningham K, Moreira R, Gould C. Infections associated with haemophagocytic syndrome. *Lancet Infect Dis* 2007;**7:**814–22.
7 Mathur P, Samantaray JC, Samanta P. Fatal haemophagocytic syndrome and hepatitis associated with visceral leishmaniasis. *Indian J Med Microbiol* 2007;**25:**416–18.

Amit Bhauwala
Varun Dhir
Amrinder Gill
Department of Internal Medicine

Prashant Sharma
Department of Haematology

Kusum Joshi
Department of Histopathology
Post Graduate Institute of Medical Education and Research
Chandigarh

Clinical problem-solving: A dying art?

Medical practice is becoming increasingly complex, with the availability of newer diagnostic technologies and therapeutic modalities. The following cases reflect some of these aspects.

Vignette one

A 50-year-old obese woman was undergoing a routine medical check-up. She was asymptomatic, and I was surprised when our ultrasonologist informed me that she had an abscess in the left lobe of the liver. I was shown a hypoechoic area in the liver just below the cardia. After transient consternation, I asked for a glass of water for the patient; the scintillating air–water interface of the sliding hiatus hernia became a cause of much embarrassment for the young radiologist!

Vignette two

A 30-year-old man presented to the emergency room with rapidly increasing weakness of his limbs. Elsewhere, a diagnosis of Guillain–Barre syndrome was considered and he was referred to our hospital. An ECG revealed a prolonged Q-T interval. A senior resident suspected that this was a pseudo Q-T prolongation, and that the ECG showed prominent U waves. The serum potassium level was 2.2 mEq/L; metabolic correction followed with return of the T and disappearance of the U waves, and the patient recovered.

Vignette three

A 55-year-old woman with long-standing diabetes mellitus and nephropathy was being treated with periodic haemodialysis. She had undergone coronary angioplasty 2 years previously. Following the renal transplant, she did well for a few days and then developed cough, dyspnoea and orthopnoea. Her ejection fraction was 65% and the lung fields were clear on a chest X-ray. A detailed review showed modest anaemia (9 g/dl), persistent tachycardia and arterial desaturation while supine. Her blood pressure was 160/60 mmHg. Intrigued by the wide pulse pressure, a visiting consultant attributed this to the arteriovenous fistula which had been created 4 years previously. High output cardiac failure, along with a degree of diastolic dysfunction were implicated. Judicious use of frusemide and carvedilol resulted in dramatic improvement.

Vignette four

A 20-year-old man presented with difficulty in breathing. He worked as a tea vendor and had no antecedent history of note. He had complained of fatigue and difficulty in breathing which progressed rapidly. He was intubated and placed on a volume ventilator in view of the hypercapnic respiratory failure. The patient's chest X-ray was normal. I told the resident on call to ask the relatives about anything that might suggest a clue. Two hours later, the resident called me and narrated that one of the regular customers of the tea shop had commented to the owner, 'Why do you employ this chap who is sleepy during daytime?' In consultation with the neurologist, we confirmed the diagnosis of myasthenia gravis.

The task of present-day teachers is to constantly look for opportunities to integrate an appreciation of physical signs and their underlying physiological principles.[1] Clinical wisdom and technological inputs should complement each other. Then, and only then, will there always be a robust task force of clinical tutors; we need them now more than ever before.

REFERENCE

1 Field M, Burke JM, McAllister D, Lloyd DM. Peer-assisted learning: A novel approach to clinical skills learning for medical students. *Med Educ* 2007;**41:**411–18.

Om Prakash
Department of Medicine
St Martha's Hospital
Bengaluru
Karnataka

The quality of Indian medical journals: Then and now

Research is an integral part of learning, development and innovation in any subject, especially in the medical sciences. Unfortunately, the research component in India in medical sciences was mostly overlooked in the past. Hence, India's contribution to the global medical literature was very low during 1950–2000 and few papers were published in indexed journals. The overall share of India in the medical literature was not only much less than that of many other countries, but also less than that of India's share in the literature in the other sciences. The data on the observed citation impact of Indian medical research was not well integrated into international research.[1]

The analysis of the *Science Citation Index* (*SCI*) data assigns an impact factor and shows that during 1981–85 only one Indian medical journal, viz. the *Indian Journal of Medical Research* (IJMR), was covered by the *SCI* with an impact factor of 0.249.[1,2]

The main reason for not covering Indian journals by the *SCI* was the poor quality of research.[3] However, according to Nundy, in 1998, of 113 biomedical journals published from India, only three Indian journals, namely the *Indian Journal of Medical Research*, *Indian Paediatrics* and *The National Medical Journal of India* were included in *SCI* and only 27 Indian journals were included in *Index Medicus*.[2] Thus, most Indian research during this period was ignored by the international fraternity and remained peripheral to the mainstream of medical science.[2]

The present scenario is not that bad. Things are changing slowly and India's contribution to the medical literature is increasing. A

considerable improvement in the quality of Indian research has been observed during the past few years as is evident by the increasing number of Indian medical journals now being assigned an impact factor and getting indexed in MEDLINE.

As per the *Journal Citation Reports* (*JCR*) of 2010, 2011 and 2012, more than 100 Indian journals, of which 35 are biomedical journals, have been assigned an impact factor,[4–6] and 49 biomedical journals are currently indexed in MEDLINE.[7]

An exponential increase in the number of journals with an ISI impact factor from one in 1981–85 to three in 1998 to 35 in 2013 and an increase in the number of journals indexed in MEDLINE from 27 in 1998 to 49 in 2013 shows that Indian medical research is progressing on the right track. The *Indian Journal of Medical Research* is the first Indian medical journal to cross an impact factor of 2 (Table I). Also, it is evident from the website of different journals that more than 14 journals have an impact factor of more than one. It is creditable for the *Indian Journal of Medical Research* and is an indication that the journal is reaching every corner of the world and is not inferior to any other international journal.

TABLE I. Indian journals included in Science Citation Index and their impact factor

S.No.	Name of journal	Impact factor		
		2010	2011	2012
1.	*Indian J Med Res*	1.826	1.837	2.061
2.	*Indian J Exp Biol*	0.702	1.295	1.195
3.	*J Postgrad Med*	1.589	1.263	1.589
4.	*J Vector Borne Dis*	–	1.177	1.040
5.	*Pharmacogn Mag*	0.432	1.159	1.525
6.	*Indian Biochem Bio*	0.824	1.142	1.026
7.	*Indian Pediatr*	0.090	1.048	1.036
8.	*Indian J Ophthalmol*	0.827	1.019	1.019
9.	*Indian J Med Microbiol*	1.006	0.988	0.907
10.	*Indian J Dermatol Venereol*	0.932	0.979	1.206
11.	*Neurol India*	0.834	0.956	1.044
12.	*Ann Indian Acad Neur*	0.415	0.928	–
13.	*Indian J Pharmacol*	0.303	0.727	0.583
14.	*Indian J Pathol Microbiol*	0.570	0.676	0.676
15.	*Indian J Pharm Sci*	0.455	0.626	–
16.	*Int J Diabetes Dev C*	0.509	0.569	0.451
17.	*Indian J Orthop*	0.285	0.503	0.737
18.	*J Cytol*	0.333	0.311	0.333
19.	*Biomed Res-India*	0.119	–	–
20.	*J Cancer Res Ther*	0.825	–	0.761
21.	*Indian J Virol*	1.133	–	0.364
22.	*Natl Med J India*	0.541	0.595	–
23.	*Indian J Surg*	–	0.081	0.092
24	*Indian J Biotechnol*	–	0.550	0.477
25.	*Indian J Hematol Blo*	–	0.056	0.250
26.	*Indian J Microbiol*	–	0.511	0.457
27.	*Indina J Otolaryngol*	–	0.033	0.054
28.	*J Biosci*	1.888	1.648	1.760
29.	*J Genet*	1.338	1.086	0.876
30.	*J Environ Biol*	–	0.640	0.684
31.	*Hem India*	–	0.205	0.463
32.	*Indian J Anim Res*	–	0.020	0.031
33.	*Indian J Anim Sci*	–	0.122	0.014
34.	*Indian J Pharmedu Res*	–	0.106	0.016
35.	*J Anat Soc India*	–	0.056	0.060

Although the progress is on the right track, we need to work harder to improve the credentials of Indian research. This is possible only by making larger investments in medical research.

REFERENCES

1 Arunachalam S. Does India perform medical research in areas where it is most needed? *Natl Med J India* 1998;**2**:27–34.
2 Nundy S. What can be done about Indian medical research? *Natl Med J India* 1998;**2**:1–2.
3 Reddy KS, Sahni P, Pande GK, Nundy S. Research in Indian medical institutes. *Natl Med J India* 1991;**4**:90–2.
4 Gunasekaran S, Arunachalam S. Impact factors of Indian open access journals rising. *Curr Sci* 2012;**103**:757–60.
5 Journals in the 2010 JCR, Thomson Reuters. Available at *http://scientific.thomsonreuters.com/imgblast/JCRFullCovlist-2010.pdf* (accessed on 5 Sep 2013).
6 Journals in the 2011 JCR, Thomson Reuters. Available at *http://scientific.thomsonreuters.com/imgblast/JCRFullCovlist-2011.pdf* (accessed on 5 Sep 2013).
7 National Library of Medicine. Available at *www.nlm.nih.gov*

Basavraj S. Nagoba
Namdev M. Suryawanshi
Research and Development
Department of Microbiology
MIMSR Medical College

Sohan P. Selkar
Department of Physiotherapy
MIP College of Physiotherapy
Latur
Maharashtra
dr_bsnagoba@yahoo.com
bsnagoba@indiatimes.com

Humour in medicine

In reading Pai and Shivasankar's 'Are surgeons spunkier than non-surgeons?'[1] one realizes that this quasi-scientific effort is largely based on humour rather than evidence-based medicine. The methodology ignores a myriad of pertinent variables such as surgical specialty, elective versus emergency procedures, and intra- and perioperative hormone levels to name but a few. The terms 'spunkier' and 'gutsier' are appropriately used in place of the more earthy appellations of writers of fiction referring to the attributes of testicular size and composition. The authors have also artfully ducked the gender issue. In the USA, it is estimated that about 30% of physicians are women and that they constitute 19% of all surgeons. In many medical schools, 50% of students are women, and in some specialties they are now in the majority. Should not the authors have avoided the sexist implications of this omission and measured the oestrogen and testosterone levels of women surgeons with due attention to diurnal, monthly, climacteric and other factors—details of which they no doubt would have been delighted to supply in the interests of scientific inquiry?

Humour in medicine is a complex topic ranging from the alleged benefits of humour and laughter to the therapeutic virtues of chicken soup. In a review, Bennett has arbitrarily divided the subject into humour and health, humour and patient–physician communication, humour and patient care, humour and the health professional, humour in medical education and humour in the medical literature—all admittedly subjective.[2] In the medical literature, it encompasses a spectrum of claims of therapeutic value, innocent fun and ultimately the outright hoax.

Sir William Osler (1849–1919) is a prime exemplar of this phenomenon. Osler was the pre-eminent physician of his time. He held professorships at McGill University, the University of Pennsylvania and Johns Hopkins University, and capped his career

as Regius Professor of Medicine at Oxford University (1905–1919), an unprecedented journey spanning three nations and two continents. Osler was a superb clinician, educator, philosopher, historian and humanist who published widely and had a truly global influence. Among his more than 1600 publications there are numerous references to the virtues of humour, some serious and others reflecting his fun-loving spirit. As a young man when asked why he whistled merrily after leaving the bedside of a gravely ill patient, he poignantly replied: 'I whistle that I may not weep.'[3] In 'The Student Life' he opined: 'Hilarity and good humour, a breezy cheerfulness, a nature "sloping towards the southern side," as Lowell has it, help enormously both in the study and in the practice of medicine. To many of a sombre and sour disposition it is hard to maintain good spirits amid the trials and tribulations of the day, and yet it is an unpardonable mistake to go about among patients with a long face.'[4]

Osler's elegant observations on laughter include: 'Like song that sweetens toil, laughter brightens the road of life, and to be born with a sense of the comic is a precious heritage.[5]

'Bubbling spontaneously from the artless heart of child or man, without egoism and full of feeling, laughter is the music of life.'[5]

But the philosophical Osler had another side—Egerton Yorrick Davis (EYD), who engaged in elaborate hoaxes and indulged his sexual proclivities. It was not merely a *nom de plume,* but a veritable alter ego who furnished a balance and undoubtedly an outlet for the constraints of his staid Victorian-Edwardian era. It was in his EYD persona that Osler told tall tales, engaged in practical jokes and published on sexual topics (sometimes referred to as 'subumbilical humour'). Nevertheless, it must not be assumed that everything bearing the imprimatur of EYD was humorous, bawdy or otherwise witty. Osler did this quite whimsically and there are some quite serious contributions appended EYD.

We see the literary emergence of EYD in 1882 when 'Professional notes among the Indian Tribes about Gt. Slave Lake, NWT,' a fanciful tale of tribal marital and obstetrical customs (including placentophagy) had been partially printed by the *Canadian Medical and Surgical Journal* and then withdrawn when Osler revealed the 'joke'. A clever hoax, this Rabelesian article remained suppressed for many years before finally being printed in a more tolerant era.[6]

Perhaps the best known of Osler's hoaxes was the 'Vaginismus' letter that appeared in the Philadelphia *Medical News* in 1884.[7] This describes in graphic detail a case of 'penis captivus' together with the attempts of Dr Egerton Y. Davis to separate the Pentonville coachman and his paramour, culminating in the use of chloroform. The report became firmly entrenched in the literature and was frequently cited as 'the Davis case' until the late 20th century. While vaginismus is recognized as a distinct clinical entity, the reality of penis captivus remains uncertain. EYD's contribution to the literature was an eminently successful hoax in that it continued to be seriously cited in spite of repeated exposures. While at Johns Hopkins, Osler (writing under a pseudonym) also described a genuine case of Peyronie disease, but composed in the style of Baron Munchausen.[8]

Would Osler have approved of Pai and Shivasankar's quest for the hormonal source of surgical spunkiness? We need only consider his admonition to the profession: 'But whatever you do, take neither yourselves nor your fellow-creatures too seriously. There is tragedy enough in our daily routine, but there is room too for a keen sense of the absurdities and incongruities of life …'.[9] EYD, too, would have approved.

REFERENCES

1 Pai SA, Shivasankar S. Are surgeons spunkier than non-surgeons? *Natl Med J India* 2013;**26:**24–5.
2 Bennett HJ. Humor in medicine. *Southern Med J* 2003;**96:**1257–61.
3 Osbourne M. Recollections of Sir William Osler. *Int Assoc Med Museums Bull* 1926;**9:**171–4.
4 Osler W. The student life. A farewell address to Canadian and American medical students. In: *Aequanimitas with other addresses to medical students, nurses and practitioners of medicine*. Philadelphia:P. Blakiston's Son & Co; 1905:413.
5 Osler W. Two Frenchmen on laughter. In: *Men and books*. Toronto:Canadian Medical Association Journal; 1912:152–5.
6 Davis EY. Professional notes among the Indian tribes about Gt. Slave Lake, NWT. In: Golden RL. *The works of Egerton Yorrick Davis, MD. Sir William Osler's Alter Ego*. Osler Library Studies in the History of Medicine, No. 3, Montreal:McGill University; 1999:19–38.
7 Davis EY. Vaginismus. *Med News (Philadelphia)* 1884;**45:**673.
8 WJW, Jr. Peyronie's disease—*strabisme du pénis. Boston Med Surg J* 1903;**148:**245.
9 Osler W. The reserves of life. *St Mary's Hosp Gaz (London)* 1907;**13:**95–8.

Richard L. Golden
Department of Medicine
State University of New York at Stony Brook
relsow@gmail.com

Publishing articles of relevance to general practitioners

I was shocked to see a paper titled 'Are surgeons spunkier than non-surgeons?' by Sanjay A. Pai and Shweta Shivasankar published in the Short Report section of the *Journal*.[1] I feel papers such as these are a waste of valuable space, time, money and talent. Please publish articles which help ordinary general practitioners like us, who practise within the Indian context.

A newspaper is a better place to publish such articles rather than scientific journals. Just by virtue of being on the working committee, the author has no right to publish this paper. Just because such authors are fluent in English and can write well, they have no business publishing such material and considering themselves the 'changers'. Please do not allow this to happen again.

Devegowda Mohan
613 Second main, First stage
Indiranagar
Bangalore
Karnataka
docmohan@msn.com

REFERENCE

1 Pai SA, Shivasankar S. Are surgeons spunkier than non-surgeons? *Natl Med J India* 2013;**26:**24–5.

Sturge–Weber syndrome

A 42-year-old man presented with generalized tonic–clonic convulsions for 2 days. He was on treatment for seizure disorder since the age of 18 years. On examination, there were erythematous hyperpigmented plaques with swelling of the right upper lip. The lesions (Fig. 1) had been present since birth**.** CT scan of the brain revealed hyperdense gyriform calcification in the right parieto-occipital lobe (Fig. 2). These features are diagnostic of Sturge–Weber syndrome which is characterized by a port wine stain over the face, ocular abnormalities (glaucoma and choroidal haemangioma) and leptomeningeal angiomas.[1] Neurological manifestations include uncontrolled epileptic crisis, hemiparesis, hemiatrophy and mental retardation.[2] CT brain reveals contrast enhancement of angioma,

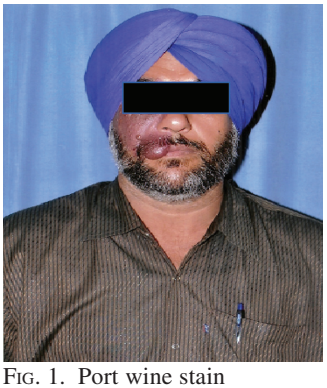

FIG. 1. Port wine stain

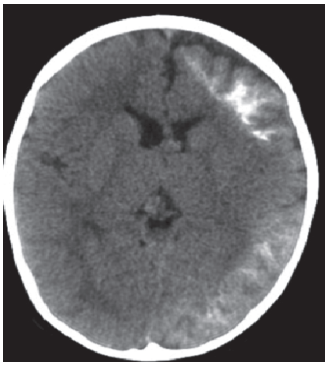

FIG. 2. Non-contrast CT brain showing subcortical white matter calcification

abnormal brain, ependymal and medullary veins.[3] Treatment includes anticonvulsants, carbonic anhydrase inhibitors, beta-blockers and aspirin. The port wine stain is treated with pulsed tunable dye laser.

REFERENCES

1 Royle HE, Lapp R, Ferrara ED. The Sturge–Weber Syndrome. *Oral Surg, Oral Med, Oral Pathol* 1966;**22:**490–7.
2 Arzimanoglou A, Aicardi J. The epilepsy of Sturge–Weber syndrome: Clinical features and treatment in 23 patients. *Acta Neurol Scand Suppl* 1992;**140:**18–22.
3 Benedikt RA, Brown DC, Walker R, Ghaed VN, Mitchell M Geyerca. Sturge–Weber Syndrome: Cranial MR imaging with Gd-DTPA. *AJNR Am J Neuroradiol* 1993;**14:**409–15.

N.S. Neki
Department of Medicine
Government Medical College and Guru Nanak Dev Hospital
Amritsar 143001, Punjab
India
drneki123@gmail.com