Introduction

Epileptics constitute a group of people who are vulnerable to injuries during seizures. This is particularly true in patients with generalized epilepsy. Epileptics are therefore generally advised to avoid heights, swimming alone, and working with machines.¹

We noticed that burns in epileptics presenting to our burn unit were mainly domestic and usually full thickness, involving the face and important face structures. We therefore retrospectively reviewed burn injuries in our unit over a 10-year period (January 1993-December 2002) in order to find out who were the persons involved and how and why they got injured, and also to proffer possible methods of preventing such injuries.

Patients and method

A retrospective review of all burn patients seen in our burn unit between January 1993 and December 2002 was carried out. The sources of information were the admission registers and patient folders. Information obtained included age, sex, whether or not patients were known epileptics, and, if so, how long they had been so. The following aspects were considered: methods of epilepsy treatment prior to injury, the circumstances of the burn, the extent of injuries, complications, treatment offered, and length of follow-up. The data were then analysed.

Results

A total of 485 patients sustained burns during the study period. Eighteen patients were recorded as sustaining burns as a result of epilepsy, corresponding to 3.7% of the total number of burn patients during the period. Ten (55.6%) of these epileptic patients were males and eight (44.4%) were females. Sixteen of them (88.9%) were known epileptics, while two had their first seizures when they sustained the burn injuries. Only seven of the patients (38.9%) had attempted any form of treatment for epilepsy prior to the burn injuries - four of these were on native herbal medications while three had seen orthodox medical practitioners but did not comply with their medications. Sixteen of the patients (88.9%) had flame burns and two (11.1%) had scald injuries. The burn surface areas ranged between 5 and 80%, with a mean of 21.0%. Most of the injuries were full thickness, necessitating wound cover. One patient had amputation of the right hand digits, while another had an above-elbow amputation. We submit that sociocultural beliefs about epileptics and epilepsy constitute a significant problem in this group of pa-
did not have the specific period of epilepsy stated in their folders. One of the patients had had a previous burn as a result of an epileptic attack.

Only seven of the patients (38.9%) had attempted any form of treatment for their epilepsy. Four (22.2%) were on native medications and three (16.7%) were being managed by physicians. None of them however had complied with the prescribed medications either because they were unable to afford the drugs (one patient) or because they felt “safe” once the symptoms had disappeared for a few months and they therefore abandoned the medication.

Flame was the main cause of burn (16 patients, 88.9%), while two patients (11.1%) had scald burns. The burn surface areas ranged from 5 to 80%, with a mean of 21.0%. Most of the injuries were full thickness. The patients were treated with escharectomy and grafting, while one patient had amputation of his mummified right hand digits; another patient had an above-elbow amputation for a severely burned right forearm.

Other surgical procedures carried out included release of eyelid ectropion in four patients (22.2%), release of axillary and elbow contractures in one patient, and a Bakamjian flap cover of the chin in another. Two of the patients (11.1%) had microsomia reconstruction. The patients were all educated about their medical problems and appropriate medications were commenced.

The complications observed in the patients included contractures, the commonest complication, occurring in 10 patients (55.6%), followed by wound infection in eight patients (44.4%), ectropion in four (22.2%), and loss of body parts in two (11.1%). Two of the patients developed psychosis while admitted and a 32-weeks pregnant woman developed severe pre-eclampsia. Four of the patients (22.2%) died.

Five patients (27.8%) patients were followed up for two years and three have been followed up to date; six patients never presented for follow-up.

Discussion

Burn injuries in epileptics have been widely reported.1-8 Our report concerns 18 patients who sustained burn injuries following epileptic attacks during a 10-year study period (1993-2002). The majority (16 patients, equal to 88.9%) were known epileptics prior to the accident, with a duration ranging from one to over 20 years. Patients’ interruption of medication was reported as the cause of burn injury in epileptics in Saudi Arabia.7 Our patients were either on no medication at all or non-compliant, owing to poverty and/or ignorance. The majority of our patients (i.e. 11 out of 16, equivalent to 61.1%) were either on no medication at all or on some native medication. This is similar to Manktelow’s series from Liberia.9

It is a known fact that some seizures tend to occur during sleep or following stimulation (e.g. by light or sound).6 Seventeen of our patients sustained burns while cooking, and one was burned during a seizure while asleep.

Various interpretations are given to epilepsy in developing countries. Many Liberians interpret epilepsy as being inflicted on a person either by a spirit or more likely
by an enemy. This belief is shared in our environment in Nigeria, where it is believed that epilepsy is a sign of visitation by the devil or evil spirits and can therefore not be treated by modern medicine. This possibly explains why people seek help from local native medicine men, as was the case in four of our patients.

Epileptics are often alienated in our environment because of the belief that the disease is contagious. Many believe that epilepsy is infectious and that it is transmitted through the saliva of a patient having an attack, for which reason people run away instead of giving first aid to an epileptic patient having a seizure.

This may also explain the extent of the injuries seen in such patients.

Epileptics are shunned by their neighbours; they may lose their spouse or their job and become considerably depressed and socially isolated. One of our patients who had an attack while cooking was divorced by her husband and left to care for the five children because of her medical condition.

Mortality in this report is high (4 out of 18, i.e. 22.2%) owing to the extent of the injuries as also to delay in presentation.

Conclusion

Poor understanding of epilepsy appears to be the main problem that predisposes patients to burn injury in our environment. Education is therefore the only solution to the problem if we are to achieve understanding both by epileptic patients and by their families. This will improve compliance with the taking of medication and guarantee that epileptics do not cook while alone.

The establishment of Epileptic Associations will also encourage group education and reduce discrimination against this category of persons. Hopefully, this will help to prevent avoidable deformities and even death as a result of burns sustained by epileptics.

Résumé. Les Auteurs présentent un rapport sur les brûlures subies par des patients épileptiques traités dans leur centre des brûlés pendant une période de 10 ans. Au total 18 patients ont subi des brûlures à la suite d’un attaque épileptique pendant cette période, ce qui constitue 3,7% des 485 patients brûlés observés (10 du sexe masculin et 8 du sexe féminin). Pour ce qui concerne seize patients (88,9%), on savait déjà qu’ils souffraient d’épilepsie, tandis que, en deux cas, c’était la première crise épileptique. Seulement sept des patients (38,9%) avaient déjà subi des brûlures, dont quatre prenaient des médications indigènes à base d’herbes et trois avaient consulté des médecins orthodoxes mais n’avaient pas suivi la médication conseillée. Seize des patients (88,9%) présentaient des brûlures par flammes et deux (11,1%) avaient subi un ébouillantement. La surface corporelle moyenne brûlée oscillait entre 5 et 80% (valeur moyenne, 21,0%). La plupart des brûlures étaient à épaisseur totale et requéraient la couverture des lésions. Un patient a subi l’amputation des doigts de la main droite, et un autre du bras au-dessus du coude. Selon les Auteurs, les croyances socioculturelles à propos des épileptiques et de l’épilepsie étaient à épaisseur totale et requéraient la couverture des lésions. Un patient a subi l’amputation des doigts de la main droite, et un autre du bras au-dessus du coude. Selon les Auteurs, les croyances socioculturelles à propos des épileptiques et de l’épilepsie constituent dans leur environnement un problème significatif dans cette catégorie de patients. L’éducation des personnes réduira la fréquence des brûlures subies par ces patients.

Bibliographie


This paper was received on 15 December 2004.

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