bed viability, studies should be performed to ensure that allograft skin truly is the best way to prepare a wound bed for grafting. Possibly, alternative treatments are superior, for example negative pressure wound therapy (NPWT) [8]. Future studies addressing this topic should evaluate the clinical efficacy, risk-benefits, and cost effectiveness of skin allograft use for various sizes of burn injury.

Conflict of interest

No conflicts of interest related to this manuscript.

REFERENCES

[1] Sheckter CC, Li A, Pridgen B, Trickey AW, Karanas Y, Curtin C. The impact of skin allograft on inpatient outcomes in the treatment of major burns 20-50% total body surface area– a propensity score matched analysis using the nationwide inpatient sample. Burns J Int Soc Burn Inj 2019;45(1):146–56.
[2] Garza RM, Press BH, Tyan DB, Karanas YL, Lee GK. Immunological effect of skin allograft in burn treatment: impact on future vascularized composite allotransplantation. J Burn Care Res Off Publ Am Burn Assoc 201627(October).
[3] Hermans MHE. Preservation methods of allografts and their (lack of) influence on clinical results in partial thickness burns. Burns J Int Soc Burn Inj. 2011;37(August (5)):873–81.
[4] Richters CD, Hoekstra MJ, du Pont JS, Kreis RW, Kamperdijk EWA. Immunology of skin transplantation. Clin Dermatol 2005;23(August (4)):338–42.
[5] Mackie D. Postal survey on the use of glycerol-preserved allografts in clinical practice. Burns J Int Soc Burn Inj 2002;28 (October (Suppl. 1)):S40–4.
[6] Kreis RW, Vloemans AF, Hoekstra MJ, Mackie DP, Hermans RP. The use of non-viable glycerol-preserved cadaver skin combined with widely expanded autografts in the treatment of extensive third-degree burns. J Trauma 1989;29(January (1)):51–4.
[7] Brown JB, Fryer MP, Randall P, Lu M. Postmortem homografts as biological dressings for extensive burns and denuded areas; immediate and preserved homografts as life-saving procedures. Ann Surg 1953;138(October (4)):618–30.
[8] Fischer S, Wall J, Pomahac B, Riviello R, Halvorson EG. Extra-large negative pressure wound therapy dressings for burns– initial experience with technique, fluid management, and outcomes. Burns J Int Soc Burn Inj 2016;42(March (2)):457–65.

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Letter to the Editor

Volunteering for burns moulage as a medical student

Dear Editor,

In the United Kingdom, there are approximately 175,000 emergency department admissions due to burns each year [1]. However, two recent studies examining the state of burns education at UK medical school found that British students are ill-equipped by their curriculum to manage burn injuries. Lemon et al. found that 33% of students questioned had never received any teaching on burns and Zinchenko et al. found that 70% of respondents had never received any education on how to manage burn injuries [2,3]. Moreover, with burns care in the UK having become more centralised there are medical students who will never have a clinical placement at a burns unit prior to graduation and thus are unlikely to have the opportunity to observe the management of severe burn injuries [1].

The author has recently volunteered to play the role of a burns casualty in the moulage section of the Emergency Management of Severe Burns (EMSB) course run by the British Burn's Association. This course teaches doctors, nurses and other healthcare professionals the core principles of the acute management of severe burns injuries [4]. This one-day course along with Advanced Trauma and Life Support (ATLS) are the two main postgraduate courses in the UK that teach candidates how to manage burns.

For the practical exam that candidates must pass to be considered EMSB certified they must manage a burns victim played by a volunteer in authentic moulage make-up representing the appearance of a variety of burns injuries. This chance to act as a burns casualty has been an invaluable opportunity to learn about the different appearance of burns depending on their depth and their cause. It also teaches one to consider visual clues to associated injuries, such as inhalation injuries or circumferential limb burns possibly requiring an escharotomy. Moreover, observing candidates systematically go through the management of a burns victim has given the author a wealth of exposure to immediate burns management that would be hard to come by without completing a dedicated burns placement.

In conclusion, the author would highly recommend volunteering on an EMSB course to any medical student interested in the management of burns, whether that be in the context of plastic surgery, emergency medicine, or to supplement their medical school education. It is the author's opinion, that volunteering on this course would be especially valuable to medical student prior to embarking on a medical elective, or student selected module, in burns.

Conflicts of interest

The author confirm that there are no known conflicts of interest.

REFERENCES

[1] Sadideen H, Goutos I, Kneebone R. Burns education: the emerging role of simulation for training healthcare professionals. Burns 2017;43:34–40.
[2] Lemon T, Stapley S, Idisis A, Green B. Is the current UK undergraduate system providing junior doctors knowledge and confidence to manage burns? A questionnaire-based cohort study. Burns Trauma 2015;3:6.
[3] Zinchenko R, Perry F, Dheansa B. Burns teaching in UK medical schools: is it enough? Burns 2016;43:178–83.
[4] Stone CA, Pape SA. Evolution of the emergency management of severe burns (EMSB) course in the UK. Burns 1999;25:262–4.

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Letter to the Editor

Electric arc path on lungs

Dear sir,

A 43 years old man sustained second and third degree burns injuries (40% body surface) after a work-related high voltage electrical trauma Electric arc entered at the right hand and exited at the left foot; patient underwent fasciotomy at the left leg at hospital arrivals.

Both oro-tracheal intubation and Extra Corporeal Membrane Oxygenator (ECMO) support were needed in order to have acceptale gas exchange.

ECMO support lasted seventeen days. Lungs imaging depicts the path of the electric arc both on chest radiography (CR) (Fig. 1, Panel A) and on computed tomography (Fig. 1 Panel B and C). showing atelectasis on the right lung (upper lobe) and on the left lung (lower lobe). Althought lung damage was visible immediatly after the injury, it was more clear on the CR on the fourth post-injury day. We discharge the patient from the intensive care unit after forty days while lungs damage was still visible on CR.

Internal organs damage is uncommon but non exceptional expecially after a high-voltage trauma, pathophysiologic mechanism is complex and is related both to thermal and to electric energy; althought the whole cell is damaged there is a predominant damage to the cell membrane [1] with direct electro-conformational denaturation of macromolecules such as proteins [2]. To our knowledge this is the first report of a clear electric arc path on the lungs.

Declarations of interest

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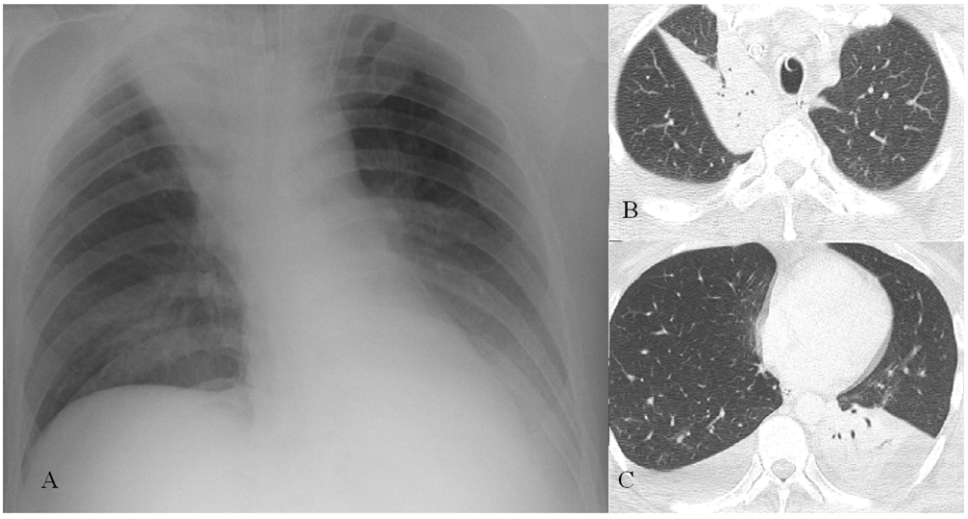

Fig. 1 – Chest radiography and computed tomography at fourth post-injury day. Panel A: Chest radiography clearly depicts the electric arc. Panel B: right lung showing upper lobe damage. Panel C: left lung showing lower lobe damage.