

factor was smoking. Most important comorbidity was underlying structural lung diseases.

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Room: Ballroom

#### Hyperbaric oxygen treatment on diabetic foot and associated risk factors of lower limb amputation: Descriptive study



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**Background:** Approximately 10-15% of diabetic patients develop diabetic foot (DF), which precede 85% of the lower limb amputation (LLA). The use of hyperbaric oxygen therapy (HBOT) has been suggested to encourage ulcer healing thus reducing the risk of LLA. The objective of this study is to evaluate the efficacy of HBOT in DF and assess the risk of LLA in this group of patients.

**Methods & Materials:** Description of the cohort of patients diagnosed with DF that received HBOT from 1<sup>st</sup> of January, 2010 to 31 of May of 2013 in the University Hospital Marques de Valdecilla (Santander-Spain).

**Results:** Forty patients with an average age of 61.35 years, received 16.13 sessions of HBOT. Epidemiological characteristics of patients were: 92.5% men, 72.5% had hypertension, 57.5% were non smokers, 40% had chronic renal failure and 30% had polyneuropathy. Average development time of the wound was 3.92 months. Indication of HBOT was infection in 72.5% of patients (20% due to chronic osteomyelitis). Wounds were located: 22.5% in calcaneus and 17.5% in interdigital area. Revascularization treatment of the lower limb was needed in 47.5% of the patients. Granulation tissue at the beginning of HBOT was presented in 5% of patients. Wounds were closed in 8.8% patients at the first month, 35.7% at the third month, 68% at the sixth month and 79.2% in the first year after treatment. 35.9% patients needed amputation, with an average of 32.5 days after HBOT. 69.4% patients did not need antibiotherapy. Associated risk factors for amputation were the presence of infection (4.527,  $p = 0.033$ ) and non related-DF returns to the system (10.89,  $p = 0.001$ ).

**Conclusion:** Adjunctive HBOT can be valuable for treating selected cases of hypoxic DF ulcers. In our cohort, HBOT was used as adjuvant treatment in 40 cases, most of them with vascular injury. We observe increasing rates of granulation tissue after HBOT that persists in the first year of follow up. Risk of amputation (35.9%) is lower than shown by other series. However, it still remains high, mostly associated to the presence of infection and need of readmission to hospital. However a multidisciplinary approach and further long-term evaluation are needed to define patient selection and the role of HBOT in the treatment of DFTORS for PPS salivary gland neoplasms.

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#### Studies on bacterial agents of surgical site infection in Osogbo, South Western Nigeria



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**Background:** Surgical site infection is one of the most frequent types of nosocomial infections in developing countries. The infection follows interference with the skin barrier, and is associated with the intensity of bacterial contamination of the wound at surgery or later in wards during wound care and has been difficult to manage due to bacterial resistance. The study aim was to isolate and identify bacterial agents from patients with postoperative surgical site infections and assess the antimicrobial susceptibility patterns of the isolates.

**Methods & Materials:** A cross sectional study was conducted at the Ladoke Akintola University Teaching Hospital, Osogbo from January to March 2013. Seventy surgical samples were collected using sterile cotton tipped swabs. The samples were analyzed using standard bacteriological media. All the bacterial isolates thus obtained were characterized and identified using standard microbiological and biochemical tests, and assessed for sensitivity to antibiotic of frequent use in the study area.

**Results:** A total of 70 bacterial pathogens were recovered from all specimens, 60 samples yielded bacterial growth (51 samples had pure growth and 9 had mixed growth) while 10 of the samples showed no bacterial growth. *Staphylococcus aureus* was the predominant bacteria (25.7%) followed by *Klebsiella aerogenes* 17(24.3%), *Escherichia coli* 11(15.7%), *Pseudomonas aeruginosa* 10(14.3%), coagulase negative staphylococci 9(12.9%), and *Proteus* species 5(7.14%). Gram negative rods were deemed highly resistant to most of the antibiotics tested. Of the isolates, 41 (95%), 38 (88.4%), 37 (86.1%), 36 (83.7%), 36 (83.7%), 35 (81.4%) 34 (79.1%), 34 (79.1%) and 31 (72.1%) were found to be resistant to augmentin, amoxicillin, streptomycin, chloramphenicol, pefloxacin, tarivid, gentamycin, septrin, sparfloracin in their respective order. *S. aureus* demonstrated high level resistance to cotrimoxazole, ofloxacin, amoxicillin, pefloxacin, streptomycin, zinnacef and ceftriazone. However, ciprofloxacin, erythromycin, chloramphenicol and gentamycin were found to be effective against the *S. aureus* isolates.

**Conclusion:** To keep resistance level to the barest minimum, it is imperative that all professionals should take an active role in infection control within their organization. More resources should be provided to encourage good antibiotic practice and good hygiene in the hospital.

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