code; 1,389 repeat code; 452 paralysis secondary to another cause) and 906 met inclusion criteria. For follow-up visits, 437 had zero and 771 had ≤3. Average age was 48 ± 20 years at diagnosis with the majority white (673) and non-Hispanic (835). Incidence increased with age: 461 subjects ≥50 years old. There was no difference in age or disease laterality. Most subjects presented to an emergency department (545). Per documentation, 550 subjects were stated to have complete facial paralysis but lacked documentation of total involvement. Forehead, eyelid, and mouth paralysis were most commonly noted. Changes in taste, sensation, or tearing were the most frequent associated symptoms. Treatment was generally steroid alone (444) or steroid plus antiviral (302). There were 174 complete resolutions, and 523 subjects had partial improvement in paralysis. The remaining subjects were lost to follow-up, or documentation regarding progress was terminated without clear resolution. For those patients who showed improvement in symptoms or complete resolution, 90% occurred by 107 ± 100 days. Dyskinesis was noted in 4 subjects and synkinesis in 2.

CONCLUSIONS: The high rate of non–follow-up and poor documentation make the natural history of BP difficult to fully elucidate. Nevertheless, it seems safe to begin intervention—with reasonable assurance of disease plateau—at 200 days postdiagnosis. Additionally, BP sequela seem either inconsistently recorded or improperly detected and consequently undertreated.

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Orthoplastic Management of Pediatric Open Lower Limb Fractures: Experience of a UK Level I Major Trauma Center

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INTRODUCTION: The evidence-base for management of pediatric open lower limb fractures is limited. Management of adult open lower limb fractures largely revolves around early administration of antibiotics, with fracture stabilization and establishing a soft-tissue envelope. However, this does not incorporate the significant differences in the pediatric population, notably the greater priority for limb salvage and differences in fracture healing. Alongside physical differences in bone structure (thick periosteum, better vascularity, shorter time to union due to better healing ability), pediatric patients also have an improved potential for remodeling. The aim of this study was to evaluate the orthoplastic management of pediatric open lower limb fractures at a UK major trauma center, reporting the risk of infection and rate of union.

METHODS: A retrospective review was performed on children presenting at our institution with an open tibial fracture from 2011 to 2016. Patient demographics, mechanism of injury, method of fracture fixation and soft tissue coverage, union time, and outcomes were recorded.

RESULTS: Twenty-three patients (16 male; 7 female) presented with an open tibial fracture. Road traffic accidents accounted for majority of the injuries (17/23, 73.9%). Methods of fracture fixation comprised: 11 (47.8%) external fixations, 6 (26.1%) plaster of paris, 4 (17.4%) intramedullary nails, and 4 (17.4%) open reduction internal fixations. Wound management comprised: 15 (65.2%) primary closures, 1 (4.4%) delayed primary closure, 2 (8.7%) split skin grafts, 2 (8.7%) local flaps, and 2 (8.7%) free flaps. The mean union time was 15.2 weeks (SD, 11.4 weeks). There was 1 (4.4%) pin-track infection, in a complex fracture through the distal third of the diaphysis of the right tibia and fibula; 1 (4.4%) superficial wound infection and no flap failure.

CONCLUSION: The study shows that unlike in adult open tibial fractures where flap coverage is considered gold standard, primary closure may suffice in selected pediatric patients. This would circumvent donor site morbidity and other flap-associated complications. Further work is required to evaluate long-term functional outcomes of this cohort.

Evaluation of Long-term Complications and Recurrence Rates in Ventral Hernia Repair With Component Separation

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PURPOSE: Ventral hernia repair (VHR) with concomitant component separation (CS) achieves better structural support in large fascial defect abdominal wall reconstructions. Traditionally, CS is performed by plastic surgeons but has recently become more popular in other specialties such as general surgery. Previous reports indicate that although CS reduces hernia recurrence, it is associated with an increased risk of complications. This study evaluates outcomes associated with VHR with CS (VHR + CS) compared to VHR alone and a subanalysis of VHR + CS outcomes stratified by plastic versus general surgeons.

METHODS: A retrospective chart review of all VHRs between January 2009 and June 2017 at a single institution was performed. Demographic data, comorbidities, procedure details, length of stay (LOS), postoperative complications, and recurrence rates were recorded. Patients with <6 months follow-up or <30 cm^2 defect size were excluded. Follow-up was defined as surgical follow-up, abdominal computed tomography or magnetic resonance imaging, or surgical visits with well-documented abdominal examinations.

RESULTS: A total of 185 patients were identified: group I (n = 42) received VHR + CS and group II (n = 143) received VHR alone. Differences in defect size (217.4 versus 149.2 cm^2; $P = 0.02$) and concurrent procedures (1.4 versus 0.9; $P = 0.02$) between groups I and II, respectively, reached significance. In addition, group I had significantly increased LOS (group I 15.0 days versus group II 4.6 days; $P = 0.0049$); however, no difference in postoperative complications (22.7% versus 21.6%; $P = 0.89$) or recurrence rates (22.7% versus 14.1%; $P = 0.052$) between groups I and II, respectively, was appreciated. Group I (n = 42), who received VHR + CS, was further stratified by specialty; group IA (n = 24) VHR + CS was performed by plastic surgeons, and group IB (n = 18) VHR + CS was performed by general surgeons. Differences in defect size (262.8 versus 149.6 cm^2; $P = 0.046$) and concurrent procedures (1.7 versus 0.9; $P = 0.047$) were noted in groups IA and IB, respectively. There were no differences in recurrence rate (20% versus 20%; $P = 0.656$), LOS (8.8 versus 6.3 days; $P = 0.33$), or complication rate (29.1% versus 27.8%; $P = 0.6$) in groups IA and IB, respectively.

CONCLUSION: Despite the use of CS in larger, more complex VHRs in our overall patient population, VHR + CS provides comparable outcomes in abdominal wall reconstruction at our institution. In our subgroup analysis, VHR + CS performed by plastic surgeons showed no difference in LOS, complication rates, and recurrence rates compared to general surgeons, despite larger defect sizes, more concurrent procedures, and more complex reconstructions performed in the plastic surgery cohort. Performance of VHR + CS is a viable approach to improving overall outcomes in patients with larger, complex hernias and may directly benefit from plastic surgery participation.

Prognostic Indicators for Upper and Lower Extremity Amputations in a Verified Burn Center

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INTRODUCTION: Reconstructive surgeons are often faced with the need to amputate when limb salvage is no longer a viable option. Burn center patients present not only with burn injuries but also necrotizing infections, purpura fulminans, frostbite, toxic epidermal necrolysis, and crush/degloving trauma. With comorbidities and extent of injury, all are at risk for amputation given the soft tissue destruction and systemic organ compromise that occurs. Because they are not well defined in the literature, the purpose of this study was to determine prognostic factors which predispose patients to extremity amputations. With early identification, multiple and extensive preservation salvage efforts in "at risk" cases may be eliminated, facilitate earlier recovery, and conserve finite resources.

METHODS: This retrospective registry review (2000–2017) compared patients who required amputations with those who were more suitable for reconstruction. Cases were further matched by age, sex, total percent body surface area (%TBSA), and type/location of injury, to control for possible confounding variables.

RESULTS: During this study period, 110 patients with amputations were compared to 12,997 with upper or lower salvaged extremities. The main etiology was flame burn (25%) with a high percentage burn injury as the most common precipitating event (59%). Amputations were mainly digital (39%) and transtibial level (33%). Comparing amputees (AP) to non-APs (NAPs), there were significant differences in mean age (50 versus 34 years; $P < 0.001$), %TBSA (20 versus 8%; $P = 0.003$), and length of stay (33 versus 11 days; $P < 0.001$). Comorbidities such as cardiovascular (relative risk, 4.3; $P < 0.001$), liver (RR, 4.8; $P < 0.001$), renal insufficiency (RR, 19.1; $P < 0.001$), diabetes mellitus (RR, 5.0; $P < 0.001$), and alcohol abuse (RR, 4.3;