ISRCTN16461293 https://doi.org/10.1186/ISRCTN16461293

Fingertip injury epidemiology, patterns, and clinical management at North Medical Tower Hospital, Northern Border Region of Saudi Arabia: a retrospective analysis

Submission date
28/04/2025

Recruitment status
No longer recruiting

Registration date
29/04/2025

Overall study status
Completed

Last Edited
29/04/2025

Condition category
Injury, Occupational Diseases, Poisoning

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[ ] Results
[ ] Individual participant data
[ ] Record updated in last year

Plain English summary of protocol

Background and study aims
Fingertip injuries are one of the most common types of hand injuries affecting both children and adults. These injuries can include cuts, fractures, partial amputations, and nail injuries, often caused by crushing incidents like door slams or accidents at home or work. The aim of this study is to understand how frequently these injuries occur, what types are most common, how they are treated, and whether certain groups (such as males or children) are more affected. The findings aim to improve prevention strategies and patient care.

Who can participate?
All patients diagnosed with fingertip injuries and treated at North Medical Tower Hospital between January 2023 and September 2, 2024, will be included. There are no restrictions based on age, sex, or nationality. Only patients who have suffered fingertip injuries will be part of the study. Healthy volunteers will not be included.

What does the study involve?
The study is retrospective, meaning it only involves reviewing existing patient medical records. No new interventions or treatments will be given. Information such as age, sex, nationality, type of fingertip injury, cause of injury, treatment received, and outcomes will be collected and analyzed. No participants will be contacted, and no new procedures will be carried out.

What are the possible benefits and risks of participating?
Because this is a retrospective study using anonymized medical records, there are no direct benefits or risks to the patients. Their participation involves no active engagement, and their data will remain confidential and secure according to hospital and Ministry of Health policies. There are no side effects, risks, or harm to the patients.

Where is the study run from?
The study is managed by the Plastic and Reconstructive Surgery Department at North Medical Tower Hospital, Northern Border Region, Saudi Arabia.

When is the study starting and how long is it expected to run for?
August 2024 to November 2024

Who is funding the study?
The study is self-funded and does not require any external or commercial funding. The research activities will be conducted within the existing hospital facilities and resources.

Who is the main contact?
Dr Waad Nawaf Alanazi, waadnawaf98@gmail.com, wanalanazi@moh.gov.sa

Contact information

Type(s)
Public, Scientific, Principal investigator

Contact name
Dr Waad Alanazi

Contact details
Abu Ala Almaarri , Salhiyah
4108
Arar
Saudi Arabia
73241
+966 (0)501945667
wanalanazi@moh.gov.sa

Additional identifiers

Protocol serial number
12345

Study information

Scientific Title
Fingertip injury epidemiology, patterns, and clinical management at North Medical Tower Hospital, Northern Border Region of Saudi Arabia: a retrospective analysis

Acronym
Fingertip

Study objectives
Not applicable

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 10/10/2024, Institutional Review Board in Arar (Northern Border Health Cluster, Arar, 73311, Saudi Arabia; +966 (0)146620295; nb-frec-ar@moh.gov.sa), ref: NIC-IRB-24-10-28

Primary study design
Observational

Study design
Retrospective cohort study

Study type(s)
Other, Screening, Treatment

Health condition(s) or problem(s) studied
Fingertip injuries, including amputations, fractures, and crush injuries affecting the distal phalanx and nail complex

Interventions
The study is retrospective, meaning it only involves reviewing existing patient medical records. No new interventions or treatments will be given. Information such as age, sex, nationality, type of fingertip injury, cause of injury, treatment received, and outcomes will be collected and analyzed. No participants will be contacted, and no new procedures will be carried out.

Intervention Type
Procedure/Surgery

Primary outcome(s)
Type of fingertip injury (amputation, fracture, laceration, nail injury), classified through medical record review at baseline (hospital admission)

Key secondary outcome(s)
1. Cause of injury (crush, door injury, sharp object, heavy object) is recorded from emergency department documentation at baseline
2. Demographic characteristics (age, sex, nationality) are extracted from patient registration records at baseline
3. Treatment modality (suture repair, flap procedure, splinting, graft, or conservative management) is documented through operative reports and clinical notes at baseline
4. Laterality of injury (right hand vs left hand) is identified based on physical examination findings recorded at baseline

Completion date
01/11/2024

Eligibility

Key inclusion criteria
1. Patients with Fingertip Injuries: All patients who were diagnosed with fingertip injuries and treated at North Medical Tower Hospital. Fingertip injury is defined as any injury that directly involves the fingertip region, including the distal phalanx, nail complex, and surrounding soft

tissue. This includes injuries such as amputations (both total and partial), fractures, lacerations, nail damage, and hematomas.
2. Time Frame: Patients treated between January 2023 and 2 September 2024
3. Age and Gender: No restrictions based on age or gender; all patients within the specified time frame are included

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
All

Sex
All

Total final enrolment
138

Key exclusion criteria
1. Hand Injuries outside the fingertip: Patients with injuries to other parts of the hand, such as the palm, wrist, or forearm, that do not involve the fingertip.
2. Tendon, Joint, or Blood Vessel Injuries: Cases where the injury involves tendons, joints, or blood vessels without involving the fingertip.
3. Pathological Fractures: Patients with pathological fractures (fractures caused by an underlying disease rather than trauma) are excluded

Date of first enrolment
01/01/2023

Date of final enrolment
02/09/2024

Locations

Countries of recruitment
Saudi Arabia

Study participating centre
North Medical Tower Hospital
Almosaediah
Arar
Saudi Arabia
73311

Sponsor information

Organisation
Northern Border Health Cluster

Funder(s)

Funder type
Other

Funder Name
Investigator initiated and funded

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study will be available upon request from Dr Waad Nawaf Alanazi (waadnawaf98@gmail.com).
Type of Data to be Shared: De-identified participant-level data including demographics (age, sex, nationality), type of fingertip injury, cause of injury, treatment modality, and injury side (right /left hand). No personal identifiers (such as names, national ID numbers, or contact details) will be shared.
Dates of Availability: Data will be available upon reasonable request.
Whether Consent for Data Sharing Was Required and Obtained: As the study is retrospective and uses anonymized medical records, individual patient consent for data sharing was not required according to the institutional review board (IRB) guidelines. Data is fully anonymized to protect patient confidentiality.
Comments on Data Anonymization: All participant data has been fully anonymized. Identifiable information such as patient names, medical record numbers, addresses, and dates of birth has been removed prior to data extraction.
Ethical or Legal Restrictions: Data sharing will be subject to institutional and ethical approvals. Data will be shared only with qualified researchers for academic or scientific purposes under a formal data-sharing agreement to ensure compliance with data protection regulations. Commercial use of the data is not permitted.

IPD sharing plan summary
Available on request