



# ONE BULLET STORIES

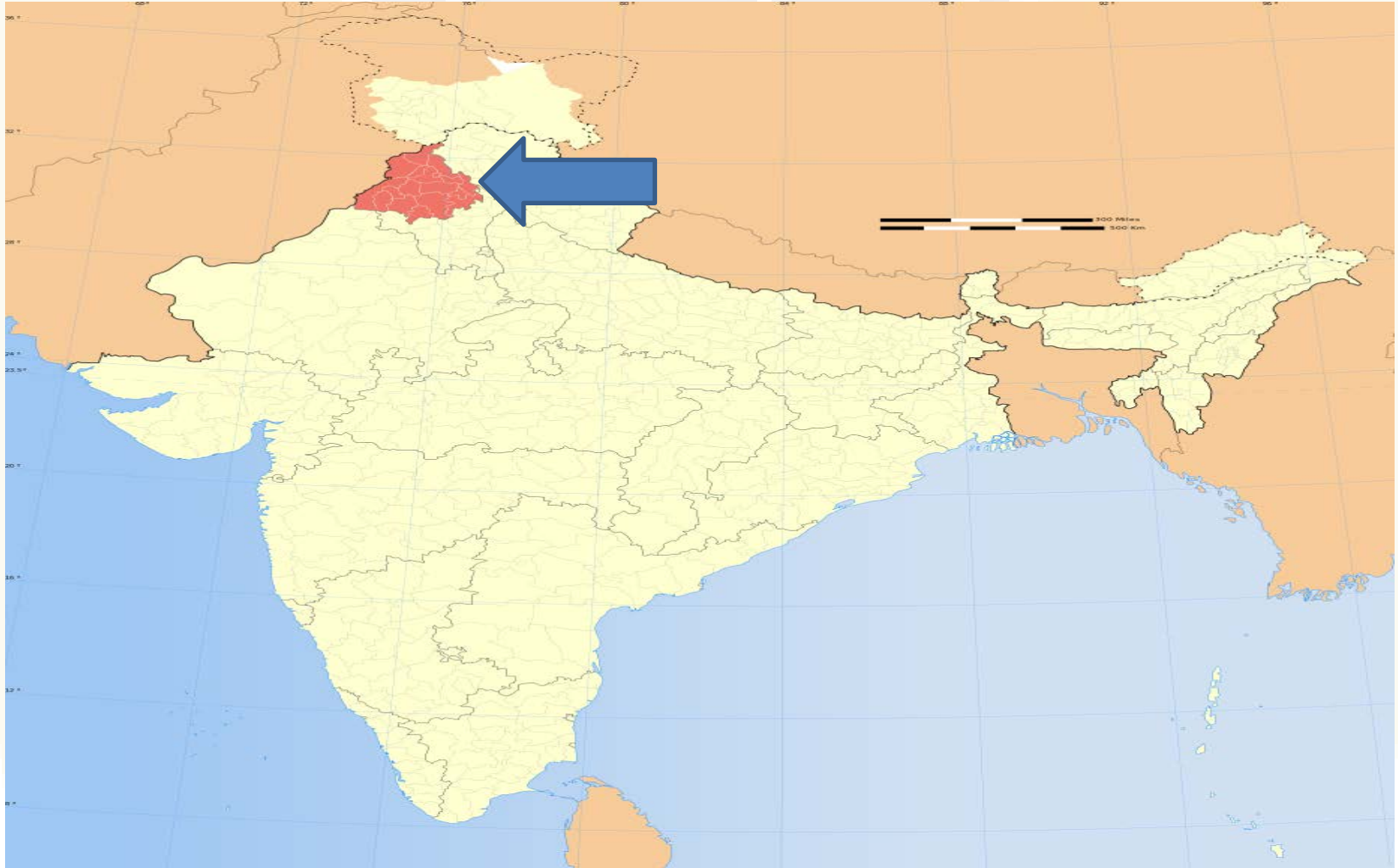
Examples of the medical and socioeconomic impacts of firearm violence in Bathinda, Punjab, India

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**Indian Doctors for Peace and Development**

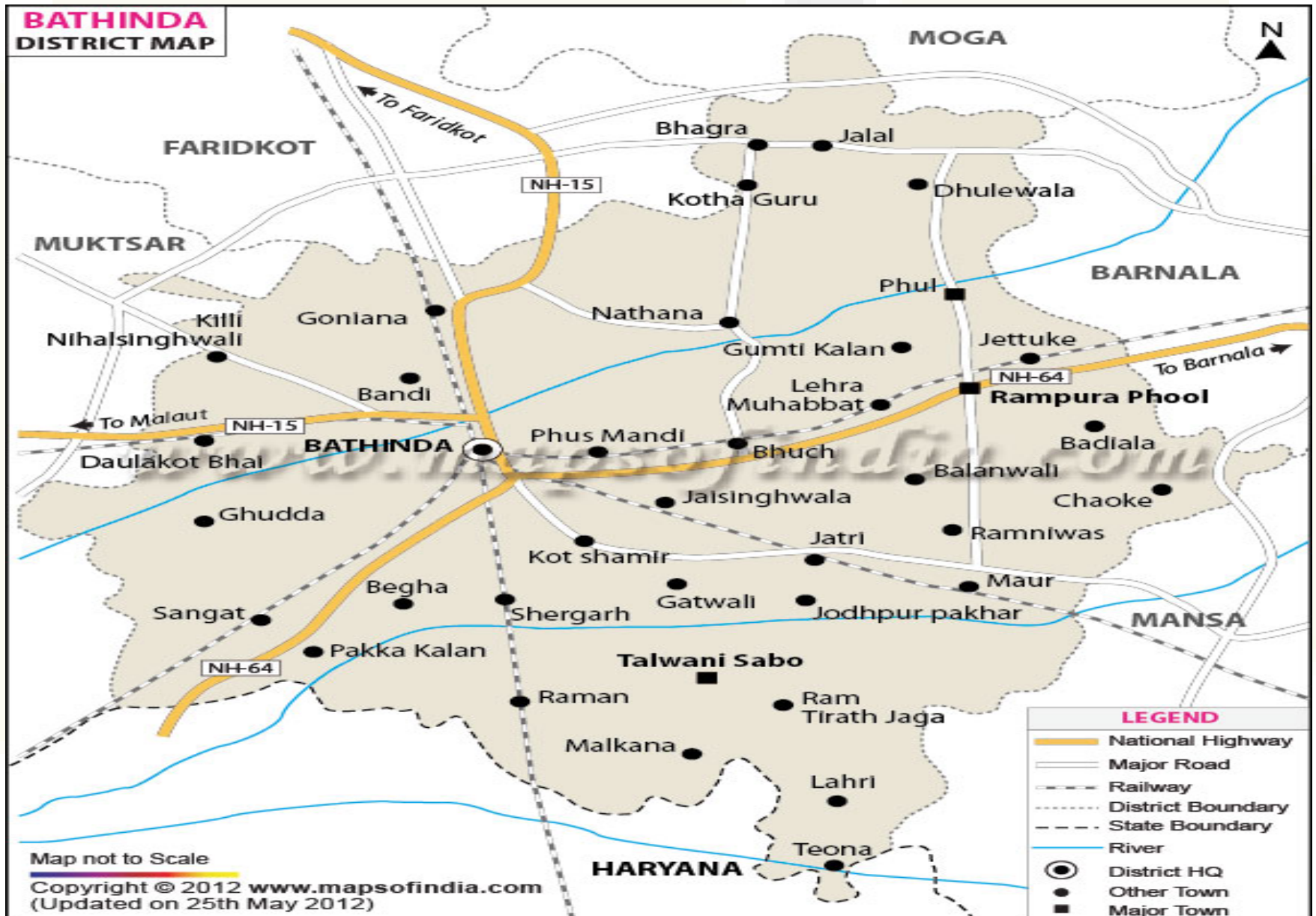
# Map of India showing Punjab ..



# Map of Punjab



# Map of Bathinda..



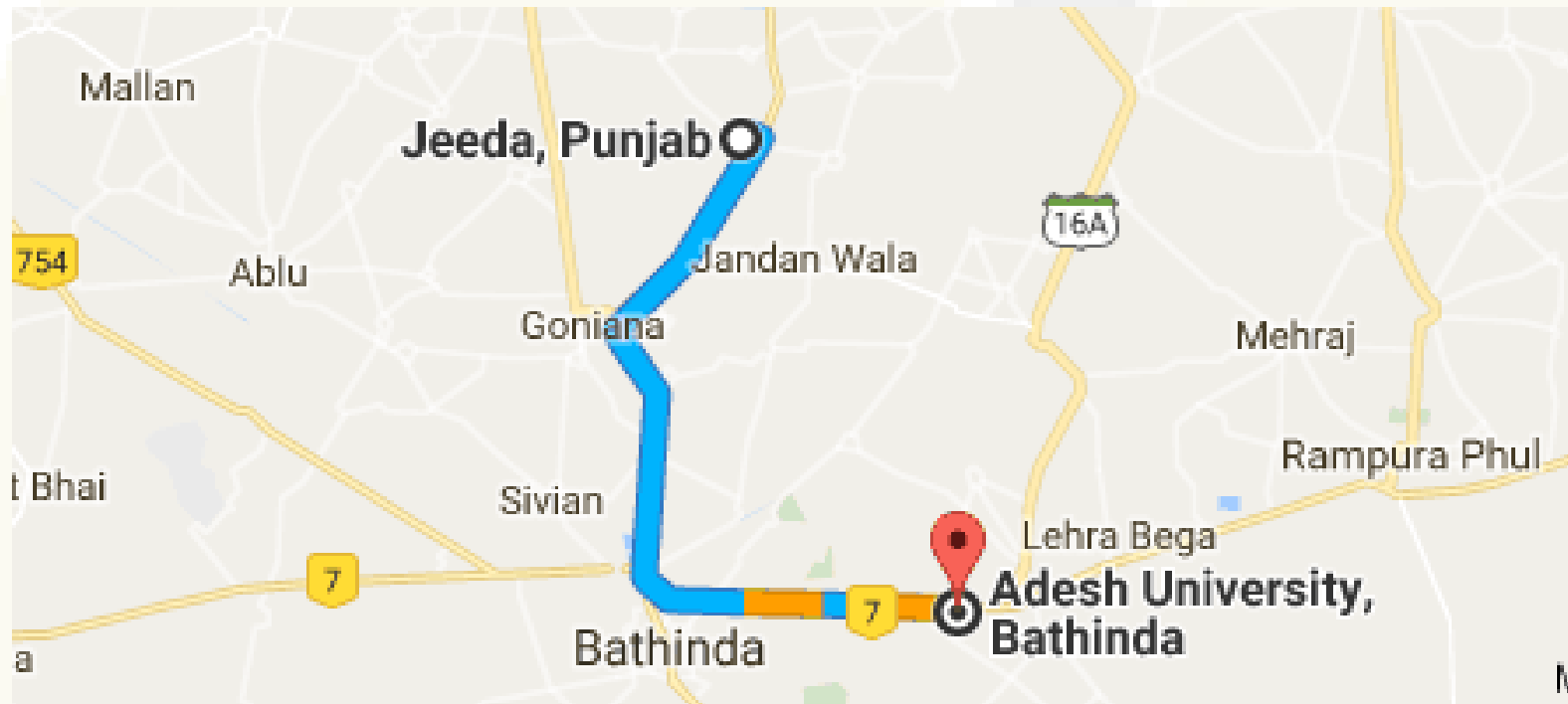


# Case Story 1:

## Man shot with pistol

A 24 yr.-old male from VPO Jeeda was shot in the abdomen with a pistol while near his home on 22 may 2016 (Sunday) at 16:30 in evening. It was during a fight related to drugs. The injured man is addicted to multiple drugs.

He was taken to the civil hospital, Goniana and from there he was referred to a private hospital in Bathinda. From that hospital he was again referred to Adesh Hospital and reached there by 22:00.



Jeeda is 33 km from Adesh Hospital in Bathinda. It took over 5 hours for him to reach Adesh after referrals from the two other hospitals.

# Entry Wound

The patient was conscious and lucid with a 1x1.5 cm oval wound on the right anterior side of the abdomen.

He had decreased sensations on left lower limb and less movement on right side of lower limb.



# 1<sup>st</sup> step .....X-ray abdomen



An immediate x-ray of the abdomen was taken showing multiple air fluid levels with some foreign body near the sacroiliac joint.

IT BE  
SILENT



# 2<sup>nd</sup> step – CT Scan of Abdomen



The scan showed a gross amount of free fluid in the peritoneal cavity, likely blood and likely air collection in the abdominal cavity with the foreign body. Likely fragments of the bullet are noted in the pelvis overlying the sacroiliac joint with the fracture of the tip of the left ischial spine.

**Patient taken  
immediately to surgery.**

# 3<sup>rd</sup> step ...Exploratory Laparotomy

At around 11 pm at night the patient was taken into surgery.

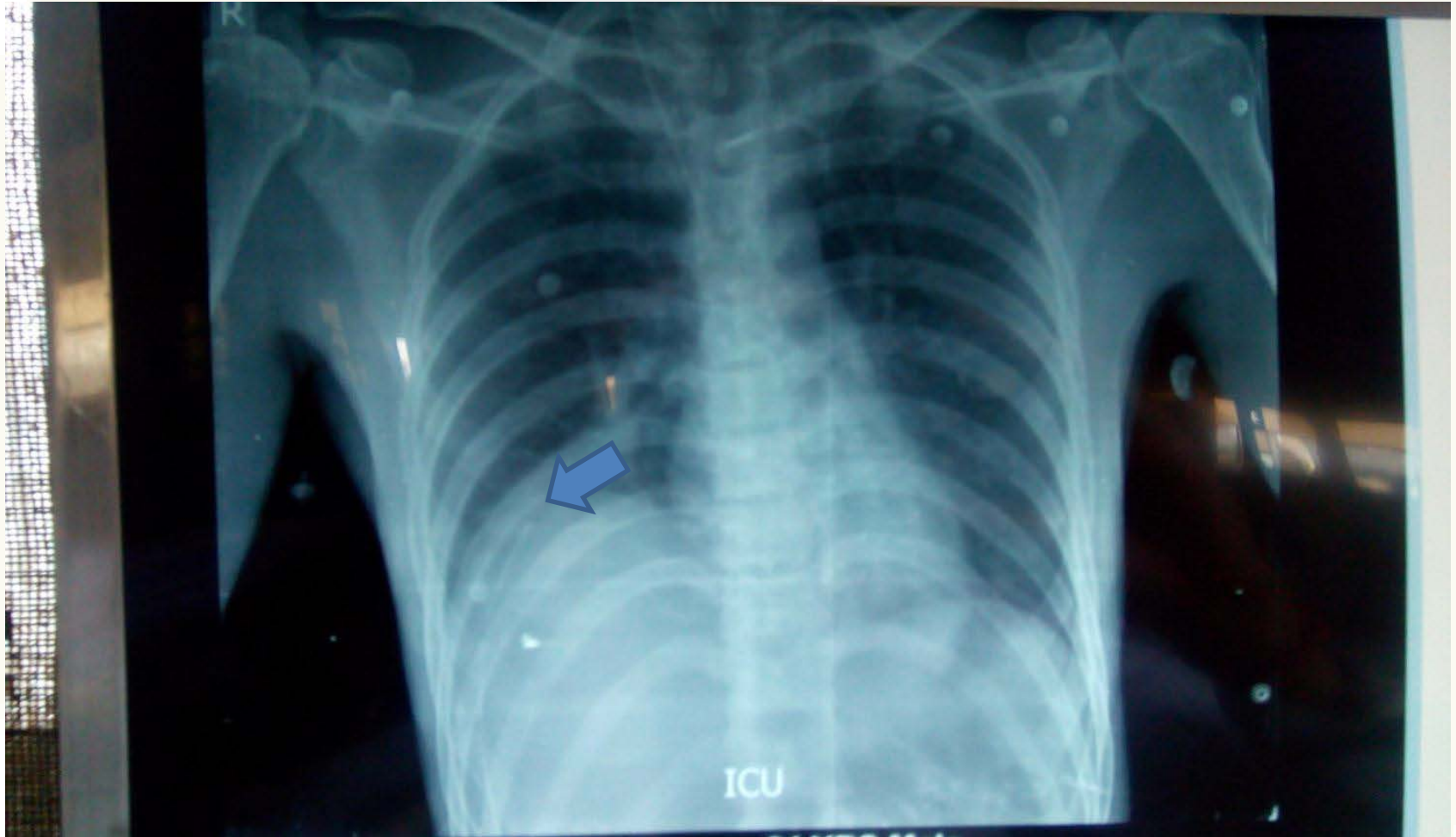
The abdomen was opened in layers by midline incision and a sudden gush of blood came on opening the peritoneum.

Around two liters of blood were suctioned and multiple perforations in the intestine were found.

The **WHOLE pelvic area and abdomen were explored but NO BULLET WAS FOUND.** All the perforations and tears were repaired and abdominal and pelvic drains were placed.



# Patient stayed in Intensive Care Unit (ICU) for 6 days



Patient shifted from to ICU at 2.40am. Above: **X-ray showing peritoneal drain**



# IN ICU

The entry wound which was sutured.

A drain placed in the pelvic cavity.



# An abdominal drain showing hemorrhagic fluid





# Patient transferred to ward

## Total days in hospital - 11



Intermittent sutures of midline incision were removed and abdominal drain was taken out and pelvic drain still at its place and patient stayed in ward for 5 days and total stay in hospital was 11 days .

# Medical Costs

## Patient medical expenditures:

- Blood bank services...Rs.5,600
- Investigations....Rs.3,490
- IP consultation...Rs.600
- Medical Equipment charges...Rs.13,500
- Miscellaneous Services...Rs.5,795
- Assorted Procedures...Rs.200
- X-ray...Rs.300
- Ward Charges...Rs.1,500
- Minor surgeries ...Rs.5,000
- ICU bed charge...Rs.6,000
- Medicine (Drugs) and surgery material...Rs.20,000
- CT scan...Rs.8,800
- Other...Rs. 4,000

Total Charges ..... **Rs.74,785 (USD \$1122)**

# Socioeconomic issues

- Patient is a farmer by occupation with a high school education and belongs to the upper middle class as per Modified Kuppuswamy scale (Total Score=21) (Kuppuswamy scale is a composite score of education and occupation of the head of the family and monthly income of the family, which yields a score of 3-29, and classifies socioeconomic status.)
- Patient's monthly income is only Rs.45,000 – about half of what the medical procedures alone cost. For the facility and medical procedures in the hospital, the patient had to use his savings. In addition, he also borrowed money from his friends and relatives.

## Psychological impact

He and his family were very tense and upset regarding the gunshot injury and also about the money which they had borrowed. He was upset about the scar mark at his abdomen and possible future medical complications, such as an increased risk of suture site leakage in the future.

## Case Story 2

### Man accidentally shoots himself

A 35 yr.-old male from VPO Badiala accidentally shot himself with a pistol on the left side of the chest due to a property crisis with his brother at bus stand in Rampuraphul.

He was taken to the civil hospital in Rampuraphul from where he was referred to Adesh Hospital, Bathinda which is 26.1 km or about **43 minutes** from the place of incident.

# Map showing distance between incident place and Adesh Hospital





Entry wound on left side of chest



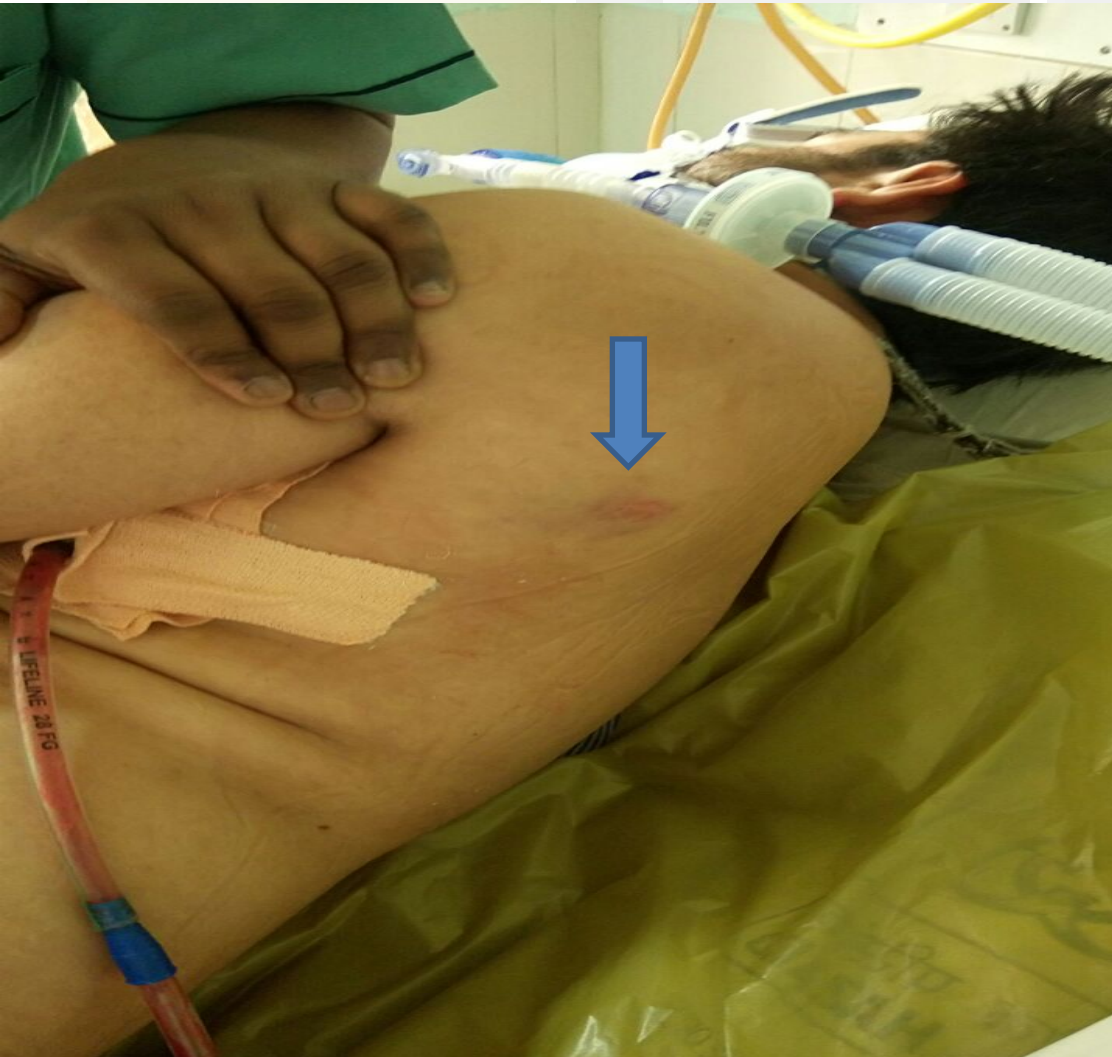
# 1<sup>st</sup> step... Immediate chest X-ray taken on bed in Casualty



A metallic foreign body of 10x12mm is seen in left axillary region with fracture of 5<sup>th</sup> rib, 2<sup>nd</sup> rib noted with blood collection in left lung region and left sided fluid collection (pleural effusion).

SILENT

## 2<sup>nd</sup> step ..Intercostal tube placement in Casualty



- Bullet seen lying under fat on back of chest.
- Under local anesthesia incision was given and intercostal tube was then placed and 1100ml of blood was drained immediately.
- Patient was then put on non-invasive ventilator.
- Post procedure vital signs were stable.



# 3<sup>rd</sup> step...Ultrasonography



Mild to moderate left sided blood collection.

# 4<sup>th</sup> step...CT Scan



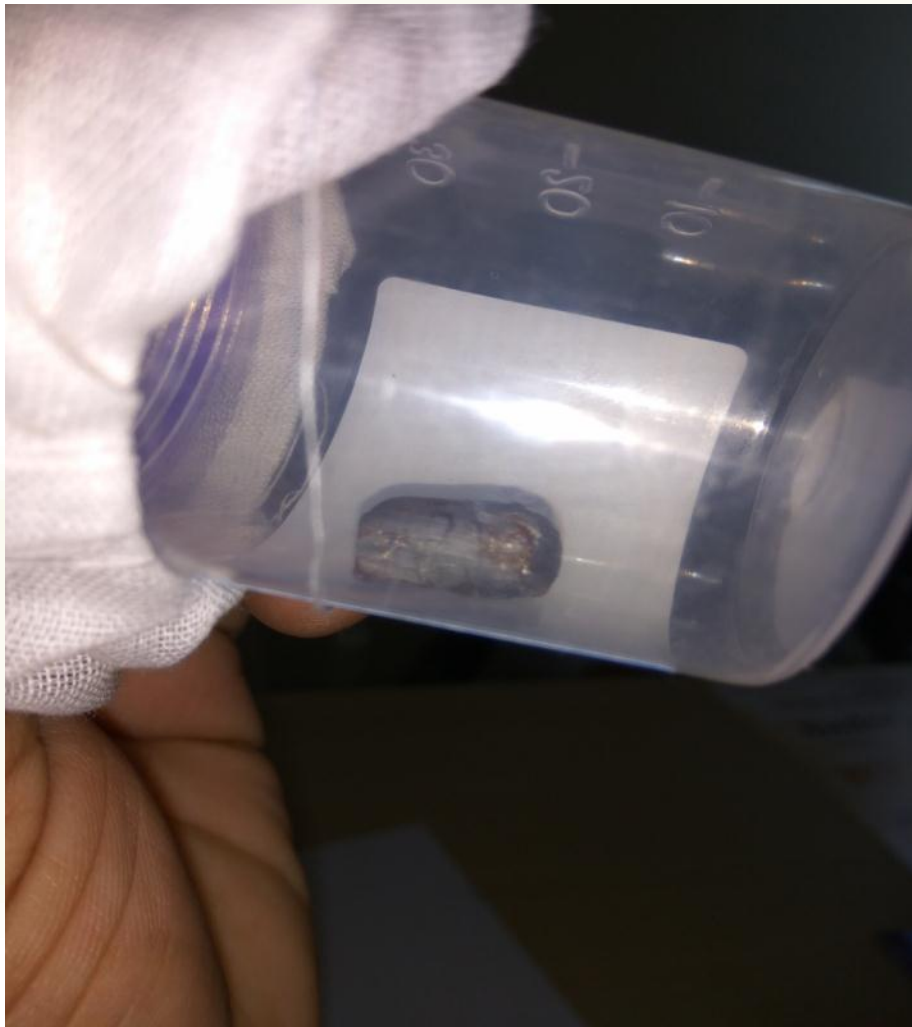
- Laceration with left pulmonary contusion involving left lung.
- Multiple metallic foreign body fragments simulating bullet with largest occupying the left posterior aspect.
- Associated minimal blood collection with underlying collapse with rib fracture .



# 5<sup>th</sup> step...Surgical Removal



Bullet was removed and was sutured under local anesthesia.



- Bullet was then sealed as per the law.
- 2<sup>nd</sup> photo shows sutured wound after removal of bullet.

# Patient in Intensive Care Unit Day 2





# ICU Day 4



# ICU Day 6



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# Additional treatments

## Total 13 days in hospital

- Patient was then shifted from ICU to Surgery ward.
- X-ray then taken on Day 8.
- USG taken on Day 9 in which minimal blood collection in thorax.
- ICD tube removed on Day 10.
- Patient kept under observation for 2 more days and discharged under satisfactory condition on Day 13.
- Patient came for follow up on 7 days after discharge.
- He was doing well on follow up.





Day 8



Sutures removed on Day 10



Day 9



ICD tube incision wound after tube removal.



Gunshot wound at the time of discharge



# Medical costs

## Patient total expenditure:

- Blood bank services...Rs.3,600
- Investigations...Rs.1,750
- IP consultation...Rs.7,000
- ICU bed charges...Rs. 6,000
- Medical Equipment charges...Rs.18,000
- Miscellaneous Services...Rs.3,110
- Other Charges...Rs.5,000
- Supra Major...Rs.9,000
- Medicine(Drugs) and surgery material....Rs.10,000
- Ultrasonography...Rs.400
- Ward Charges...Rs.6,000
- X ray...Rs.400
- Total Charges .....**Rs.70,260 (USD\$1054)**

# Socioeconomic Issues

- Patient belongs to upper lower class (Total Score=8) as per Modified Kuppuswamy scale.
- Patient's monthly income is only Rs.12,000, and for the stay and procedures in hospital he had to use his savings and borrow money from his friends and relatives. Medical costs were nearly 6 times his monthly income.

## Psychological impact

He and his family were tense regarding the gunshot injury and also about the money which they had borrowed to pay for it.



# Present status in India & Punjab of Firearms

India is home to roughly 40 million civilian firearms, out of an estimated 650 million civilian owned guns believed to exist worldwide. Only 6.3 million in India (just over 15 per cent) are registered. In the capital Delhi alone, the number of illegal firearms was estimated to be at 300,000 (1,2,3).

In India Uttar Pradesh has issued 11.17 lakh (1 lakh=100,000) arms licences, Punjab 5 lakh, Madhya Pradesh 2.75 lakh, neighbouring Rajasthan 1.67 lakh and Haryana 1.12 lakh. In Punjab the border district of Gurdaspur has the highest number of licences (35,793), followed by Bathinda (32,452), Ludhiana (26,362), Jalandhar (24,365) and Patiala (24,309) and it has 1,000-odd arms dealers, whereas only about 200 are members of the arms dealers association. About 33,000 arms licenses have been issued to women.

This growing gun culture and a rising crime rate has swelled the demand for illegal arms and arms licences in Haryana, Punjab and neighbouring areas, including Uttar Pradesh, Rajasthan and New Delhi. (4,5)

# Arms in Punjab

In view of licensed weapons Punjab ranks 2<sup>nd</sup> in India with 5 lakhs licensed weapons after Uttar Pradesh (11.17 lakhs). One in every 18 families in the state has an arms license. The border district of Gurdaspur has the highest number of licenses (35,793), followed by Bathinda (32,452), Ludhiana (26,362), Jalandhar (24,365) and Patiala (24,309).

Sources add that 11 of Punjab's 22 districts figured in the list of the top 50 districts in India with the highest number of arms licences. They include Amritsar, Tarantaran, Firozpur, Hoshiarpur, Sangrur and Muktsar. So, despite being merely 2.3% of the country's population, the state has nearly 20% of the total private licensed weapons in the country. Nearly 21 lakh private arms licenses have been issued in India. Despite the efforts of Punjab Police and Government, the unauthorized weapons are still on an increase in Punjab.(6)

# What can the medical community do?

- Conduct community based studies of violence.
- Conduct hospital-based studies of firearm injuries.
- Educate colleagues and peers about the issues.
- Hold campaigns and activities that create awareness among the public and the government like street plays, school plays, poster competitions, photo caption competitions, protests, bike rides etc.
- Bring medical expertise to policymakers.
- Help improve health infrastructure for victims of gun violence.

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# Acknowledgements

## We thank:

- The 25 yr.- and 35 yr.-old old males who agreed to share their stories.
- Adesh University, Adesh Institute of Medical Sciences & Research , Department of Surgery, Bathinda, which allowed us to conduct our work.
- IPPNW Central Office (Aiming for Prevention ) for refining and adopting the OBS as an official small arms violence prevention campaign tool.