

# Attempted suicide by intravenous injection of mercury - a case report

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## Abstract

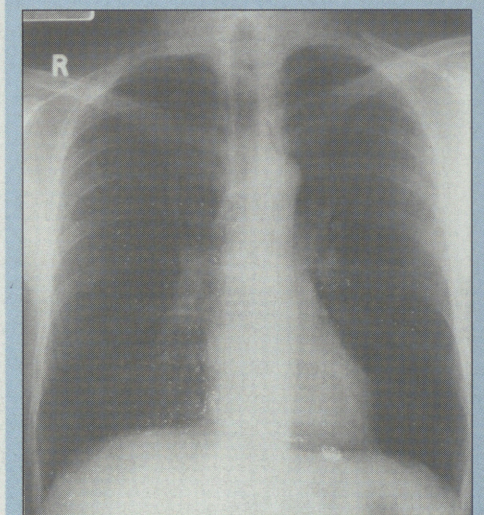
*A 37 year-old male attempted suicide by intravenous injection of metallic mercury. Besides the embolization to the various organs, he suffered no ill-effects.*

A 37 year-old male presented at the Pretoria Academic Hospital following an intravenous injection of metallic mercury as an attempt at suicide. His general condition was stable. Prior to admission to the Psychiatric Hospital in February 1996 he underwent the following examinations: postero-anterior and lateral chest roentgenograms, and computerised tomographic examinations of the chest and upper abdomen.

The patient was last seen when he was re-admitted to the Psychiatric Hospital during March 1997 and discharged May 1997 to be followed-up at the out-patient clinic. The patient's general condition was satisfactory.

The findings following the first admission were as follows:

Postero-anterior chest roentgenogram (Figure 1)



Soft tissue and bony structures are normal.

Heart is normal in size and configuration.

Mediastinal and hilar shadows are normal.

Multiple pinpoint high density areas are noted in the periphery of both lung fields and there is a concentrated collection at the apices of the ventricles.

Lateral chest roentgenogram (Figure 2)



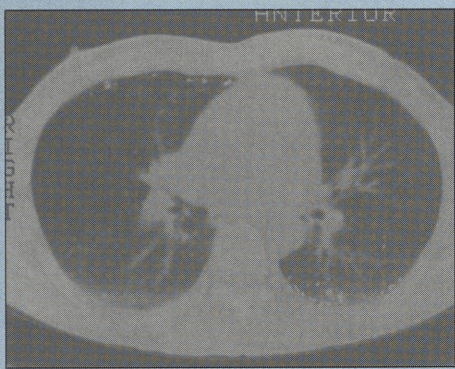
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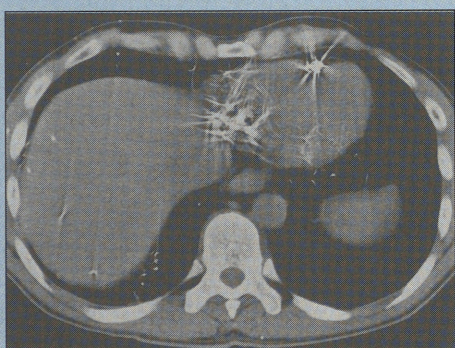
Few metallic fragments are present in the subcutaneous soft tissue anterior to sternum (patient was a metal grinder.) The high density pinpoint areas were again noted in the periphery of the lung fields.

## Computerised tomography of the chest (Figure 3)



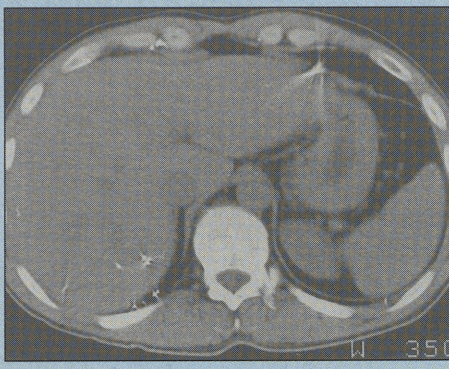
This again confirms the presence of the high density pinpoint areas localised in the periphery of the lung fields. There are a few of these pinpoint areas more centrally in the lung parenchyma.

## Computerised tomography of the chest (at a lower cut) (Figure 4)



A high concentration of these high density areas are present at the apices of the heart.

## Computerised tomography of the upper abdomen (Figure 5)



A few of the high density pinpoint areas are present in the liver. The spleen is clear.

## Discussion

Several cases of intravenous self-administration of metallic mercury have been reported in the literature. Many questions regarding the risk of death following intravenous injection of metallic mercury still remain unanswered owing to the rarity of the phenomenon. It seems however, that in most cases, including our case, that intravenous injection of mercury does not cause death.

Mercury embolization has been described in various organs including the heart, lungs, liver, kidneys and lymph nodes with no apparent ill effects following a 5-year follow-up. In one case persistent symptoms of tremor and extremity

weakness were documented. A granuloma with metallic densities was found in the apex of the right ventricle in one of the cases.

## Bibliography

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