



## Case of Celphos Poisoning with Retained Guide wire Posted for Emergency OT for Guide Wire Removal

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### Abstract

*Aluminium phosphide (ALP) is a commonly available pesticide in agricultural countries. It is a highly effective outdoor and indoor insecticide and rodenticide. Upon ingestion, this releases highly toxic phosphine gas in the gastrointestinal tract when it comes in contact with humidity.<sup>1</sup> ALP inhibits cytochrome oxidase, interferes with cellular respiration and induces severe oxidative stress. This leads to refractory shock, metabolic acidosis, arrhythmia, renal and hepatic failure. There is no antidote available and the treatment is mainly supportive.<sup>2</sup>*

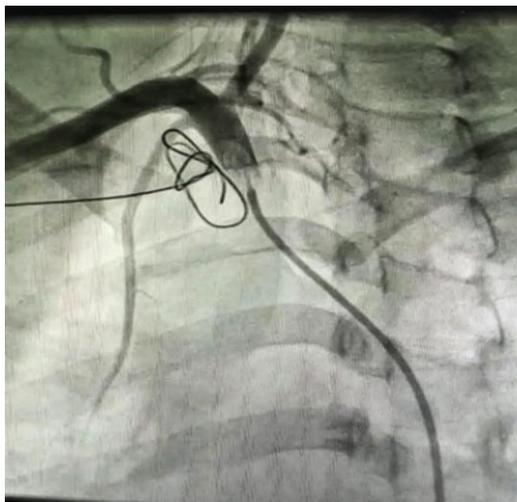
**Keywords:** *Celphos poisoning, retained guidewire, Pneumothorax, clavicle segment removed.*

### Introduction

Aluminium phosphide also known as celphos is one of the most dreaded poisons one can ever encounter in toxicology. It is a highly effective outdoor and indoor insecticide and rodenticide. Upon ingestion, this releases highly toxic phosphine gas in the gastrointestinal tract when it comes in contact with humidity. Inserting central line catheter for goal directed fluid therapy is important for management. Although numerous complications of Seldinger technique have been reported, guidewire related complications are rare but potentially serious. The vast majority of guidewire retention cases are identified immediately, during or shortly after the procedure.<sup>3</sup>

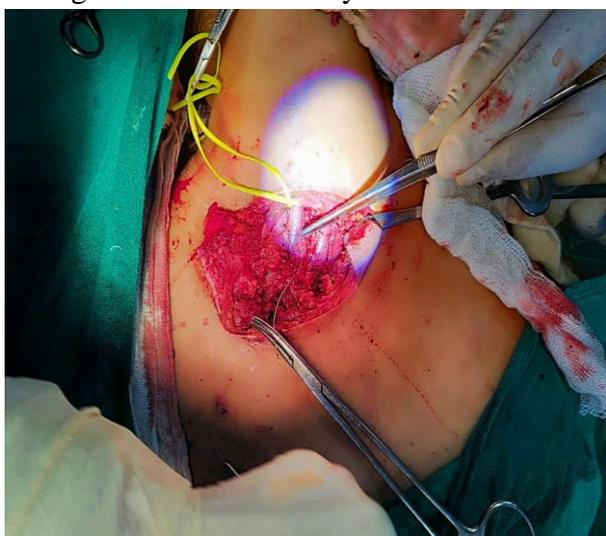
### Case Report

A 23 year old female patient presented with alleged history of celphos poisoning. Patient was admitted in medicine ICU; presented with shock and hemodynamic instability. Resuscitation was started and landmark guided rt. sided subclavian vein cannulation was planned. During SVC cannulation, guide wire got stuck and multiple attempts with gentle traction were taken to remove the guidewire which failed. Then, subsequently, low dose norepinephrine infusion was started by taking i/v access in left external jugular vein (EJV).

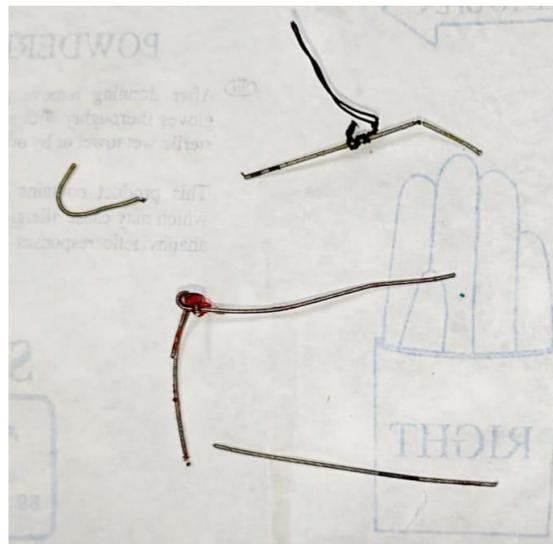


**Figure 1:** Chest Xray showing coiled guide wire along right clavicle and soft tissue

Patient started to desaturate and portable chest Xray revealed retained guidewire coiled around clavicle and right sided Pneumothorax for which ICD was inserted and subsequent chest x-rays showed improvement. After stabilization of vitals, surgery was planned and patient was taken for emergency OT in view of retained guide wire around clavicle and soft tissue. Surgery planned under general anaesthesia using lung protective ventilation. CTVS and ENT surgeon planned neck dissection to remove the coiled guidewire along with clavicle segment using infraclavicular approach. Patient extubated successfully and shifted to ICU for further management; where patient remained stable and after resolution of pneumothorax, ICD was removed. Patient was discharged after full recovery.



**Figure 2:** Intraoperative dissection



**Figure 3:** Segments of removed guide wire

### Discussion

Few patients of celphos poisoning have been saved but doubts still remains about the nature, amount of poison and interval between consumption and resuscitation. The level of experience of physician inserting CVC is of paramount importance. Pneumothorax is one of the most common CVC insertion complications representing upto 30% of all mechanical adverse events. Real time USG guidance is of value in high risk patients and those with previous unsuccessful insertion attempts especially in emergency setting. Though guidewire complications are rare, but they can be accompanied by significant morbidity and mortality.

### Conclusion

Timely intervention and resuscitation is need of the hour but emphasis should be laid to perform vascular catheterization techniques with the guidance of USG or skilled and experienced operators in order to minimize such complications and their adverse results.

**Declaration of conflicting interests:** The authors have declared that no competing interests exist.

**References**

1. S.N. Khosla, R. Handa, P. Khosla. Aluminium phosphide poisoning. Trop. Doct., 22(4) (1992),pp. 155-157.
2. R. Pangei, R.K. Kc. Successfully managed case of Celphos poisoning: a case report and review. J Nepal Health Res Counc, 12(28) (2014), pp 200-202.
3. Choudhary A, Agarwal A, Dhiraaj S. An unusual case of guidewire impaction during internal jugular venous cannulation. Anesth Analg 2005;100:1217-8.