

An Unusual Suicide Attempt.: Intramuscular Thinner Injection

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- ✓ The aim of this paper is to present an unusual suicide attempt with intramuscular thinner injection.
A single case report.
Second suicide attempt of a 19 years old female with thinner injection is presented. The first attempt was by ingestion of pills.
We believe that the patients who attempted suicide should be followed up closely for recurrent suicide ideation. Teaching skills on coping with stress and providing appropriate psychiatric treatment must be the goal in preventing possible repeating suicide attempts.
Key words: *method of suicide , thinner, IM injection, psychiatric symptoms, suicide prevention*

- ✓ **Olağan Dışı Bir İntihar Girişimi: İnteromusküler Tiner Enjeksiyonu**
Olağan dışı bir yöntem olan intramusküler tiner enjeksiyonu ile gerçekleştirilen bir intihar girişimi olgusunun sunulması. Tek olguluk bir sunum. 19 yaşında bayan hasta ikinci kez gerçekleştirdiği intihar girişiminde intramusküler tiner enjeksiyonunu özellikle ölümcül olabileceği için tercih etmiştir. İlk girişiminde ise ağız yolu ile ilaç alımını kullanmıştır. İntihar girişimde bulunan hastaların tekrarlayan intihar düşüncesini yönünden takibinin önemli olduğu kanısındayız. Ayrıca bu hastalara başa çıkma becerilerinin kazandırılması ve uygun psikiyatrik tedavinin verilmesi muhtemel olan ölümcül intihar girişimi riskini azaltacaktır.
Anahtar kelimeler: *İntihar şekli, tiner, im enjeksiyon, psikiyatrik semptomlar, intiharı önleme*

INTRODUCTION

Thinner is a substance that is used for industrial purposes. Standard thinner solution is formed by mixing toluene, ethyl acetate, and isobutanol. It has many psychiatric and physiologic adverse effects on human beings^(1,2).

Suicide attempts take the first place in psychiatric emergencies. The most common method used is oral ingestion of drugs^(3,4). Suicide with other methods especially with chemicals via intravenous route is less often seen^(5,6).

Majority of reported cases involving

thinner are about inhalation toxicity, abuse and oral intake⁽⁷⁻¹⁰⁾.

In psychiatric literature thinner is mostly mentioned under "inhalant-related disorders" and this kind of substance dependence is widespread among young and poor people. Death can result from over doses of thinner⁽³⁾.

To the best of our knowledge there is no reported suicide attempt with thinner by parental way in medical literature. Herein we present an unusual suicide attempt with IM thinner injection in a patient with no history of inhalant related disorder.

CASE REPORT

A 19-year old female ingested 20 pills of naproxen sodium (625 mg per pill) and injected thinner to antecubital location of her right arm for suicidal purpose 2 hours before she was admitted to the Emergency Department. She tried to inject thinner intravenously but apparently missed the vein. The patient was conscious (Glasgow Coma Scale 15) and her physical and laboratory examinations were normal except for swelling and crepitating on antecubital area of her right arm. For the ingested naproxen sodium gastric lavage was performed and 1g/kg activated charcoal was administered via nasogastric tube. On her psychiatric examination; she was anxious, looked depressed. She was glad to be alive and reported no suicidal ideation at that point. In thought of content there were problems with her boy-friend. She was started on fluoksetin 20 mg/day.

The patient is single, high school graduate and unemployed. She was the first and desired child of her family. Her mental and motor developments were normal. She was scholastically successful. There were many family problems due to her mother's bipolar affective disorder and her father's alcohol dependency. Her mother frequently beat the patient and left the house in her manic attacks. She witnessed her mother having intercourse with her fathers' friend when she was ten years old. Her mother was said to have similar relationships. When she told her father this event four years later, her father and mother got divorced. Her family held her responsible for their divorce and constantly accused her. Then when her father was imprisoned for being unable to pay his debts she started living with her mother. During her stay there the mother had an acute manic episode; with the help of her neighbours she got her mother hospitalised and then moved to her grandmother's home. At the age of 17, she had an argument with her grandmother and she impulsively ingested some drugs to commit suicide. After her father was released from the prison she asked for financial support for college education. Upon

refusal she left home to live with her girl friends and apparently they were not able to get along with her. This time she moved to live with her boyfriend and found a job at a supermarket. For two years she was quite happy. Then she quarrelled over home expenses with her boy friend and ingested 20 pills of naproxen sodium (625 mg per pill) and suddenly remembered that these pills did not kill her when she previously took them. So attempted IV injection of thinner. At the time of this act her boyfriend was not home. When he returned and saw her swollen arm he took her to the hospital. After being seen by the Emergency Department physician and by a psychiatrist, a plastic surgeon was called for consultation due to development of necrosis at the sight of injection of thinner while she was still in ED.

The following day she had debritman and fasciotomy operation (Figure 1). During her stay at the hospital motor and sensorial loss developed at her hand. Neurologist and psychiatrist were called for consultation. Electrophysiological study showed total axonal loss in the nervous radialis and partial axonal loss in the nervous medianus, ulnaris and axillaris at the right arm.

In her psychiatric examination, the only finding was her preoccupation with family problems. Continuation of fluoksetin was suggested by the psychiatrist. The patient was transferred to the physical therapy department for the treatment of pheripheric nerve injuries. She developed suicidal ideation when she learned she was to be discharged, so psychiatric evaluation was performed again. This time psychometric tests were used. The scores were 12 from Beck's Scale for Suicidal Ideation, 28 from the Beck's Suicide Intent Scale and 14 from the Hopelessness Scale. The Structured Clinical Interview for DSM-III-R Personality Disorders Questionnaire (SCID-II-Q) revealed no psychopathology. The patient was diagnosed as adjustment disorder with depressed mood. The dose of fluoksetine was increased to 40mg/day and individual psychotherapy was suggested to be started after her discharge.

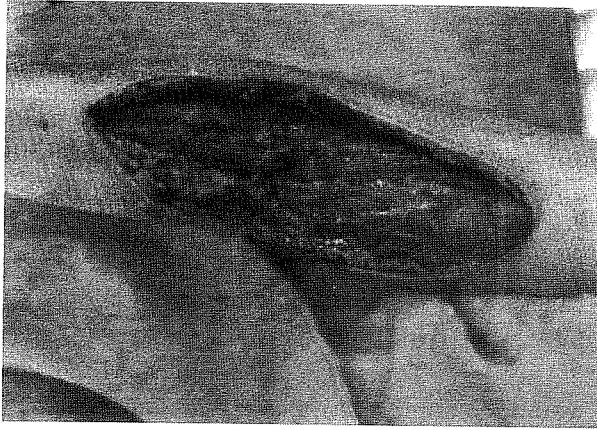


Figure 1. Debritleman and fasciotomy of the thinner injected arm.

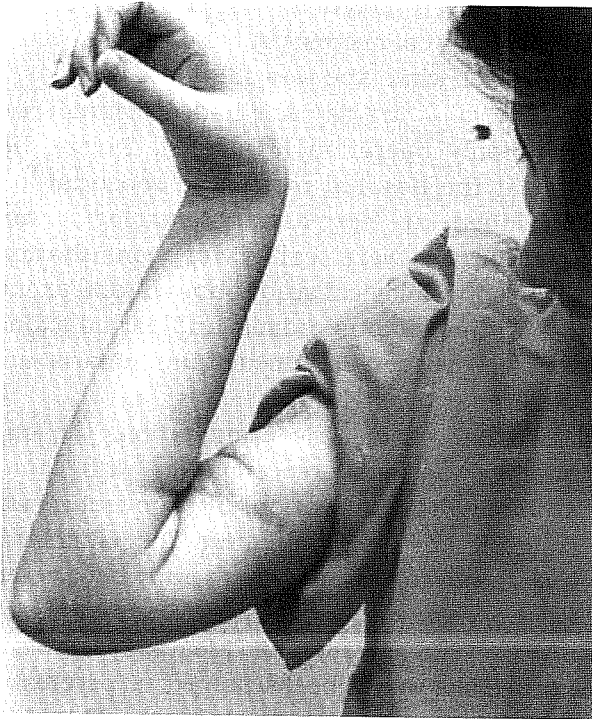


Figure 2. Signs of la belle indifference.

DISCUSSION

Thinner which contains aromatic hydrocarbons such as xylene, toluene and N-hexane is widely used in industrial plants manufacturing dyes, plastic, varnishes and glues. Chronic intoxication due to abuse of solvents, including thinner, by workers who inhale the solvent vapour is frequently encountered⁽¹¹⁾.

Most serious adverse effect of thinner inhalation is death, which can result from respiratory depression, cardiac arrhythmia, asphyxiation or the aspiration of vomits. Other serious adverse effects associated with long-term inhalant use include irreversible hepatic or renal damage and permanent muscle damage associated with rhabdomyolysis. Additional adverse effects are cardiovascular, pulmonary and gastrointestinal symptoms and other neurologic signs and symptoms⁽¹²⁾.

Adverse effects of parental thinner injection such as cellulitis and sterile abscess have been associated with the necrotic effects of hydrocarbons⁽¹³⁾. In this case necrosis developed in the injection sight, and peripheral nervous injury developed.

Some of the non-violent suicide attempts are a call for help especially in females. The recurrence rate of suicide attempts within one year that result in death is 1-2 %⁽¹⁴⁾. The present case attempted suicide two year ago but did not receive psychiatric treatment. If she had had treatment, she may not have preferred a violent way in her second attempt. In follow up period at hospital she was happy and had no suicidal ideation until the decision of discharge. We considered she had secondary gain by her illness and received high support from hospital-staff. Although a physical deficit occurred at her right arm, the patient showed signs of la belle indifference (Figure 2).

In conclusion, we considered that the patients who attempt suicide should be followed up closely for recurrence of suicidal ideation. Also teaching coping skills and giving appropriate psychiatric treatment are necessary for the prevention of recurrent suicide attempts.

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