# Injection of methacrylate in the leg. A case report

Albertinio Jarquín Delgado M.D. Alexis Emir Noguera Echeverría M.D. Francisco Rodolfo Esquivel Díaz M.D. Victor Hugo Solis Reyna M.D. Sergio Heinar Rodríguez Sosa M.D. Carlos Ignacio Rafael Pérez M.D.

#### Nuevo Leon, Mexico



#### Background

The injection of methacrylate has been used in the correction of aesthetic defects such as wrinkles, furrows and facial sagging. The technique has become popular due to its effectiveness and its relatively low cost compared to other aesthetic treatments. However, methacrylate injection can lead to serious and potentially fatal complications. The case of a patient attending the reconstructive surgery service by methacrylate injection is presented and a brief review of the literature is performed. The injection of methacrylates can provide a quick and economical solution for the correction of aesthetic defects. However, the complications associated with methacrylate injection can be serious and potentially fatal. Inflammatory reaction, infection, tissue necrosis, and pulmonary embolism are common complications associated with methacrylate injection. It is important for patients and medical professionals to understand these risks and take steps to minimize them.

#### Keywords: Methacrylate injection.

The injection of methacrylate has been used in the correction of aesthetic defects such as wrinkles, furrows and facial sagging. The technique has become popular due to its effectiveness and its relatively low cost compared to other aesthetic treatments. However, methacrylate injection can lead to serious and potentially fatal complications.

# Epidemiology

The incidence of complications related to methacrylate injection is difficult to determine due to the lack of systematic registration and the private nature of treatment. However, case reports and retrospective studies suggest that complications associated with methacrylate injection are more frequent than reported.

# Significance

The complications associated with methacrylate injection can be serious and potentially fatal. These risks include inflammatory reactions, infections, tissue necrosis, and pulmonary embolism. In addition, complications of methacrylate injection can make it difficult to diagnose other diseases or medical conditions.

## Case report

A 70-year-old female patient with a history of a well-differentiated intestinal carcinoma with tubular and papillary pattern presents for presenting chronic wound in the middle third of the left leg of approximately 3 cm with a history of methacrylate infiltration on physical examination chronic wound of approximately 3 cm with exposure of Methacrylate on leg without exit purulent or blood material. Is integrated diagnosis of disease by modelants in the left leg and modelant disease covering the entire anterior aspect of the tibia is observed with exposure of approximately 3 cm with poor prognosis for function and for the extremity.

#### Discussion

## Chemical composition

Methacrylates are a group of synthetic polymers that are used in a variety of applications, including the manufacture of plastics and adhesives. In aesthetic injection, methacrylates are used as fillers due to their ability to provide volume and shape to the skin. Methacrylates are composed of methylmethacrylate and other monomers.

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Figure 1. Lesion in the middle third of the leg with methacrylate outlet.

### Inflammatory reaction

Inflammatory reaction is a common complication associated with methacrylate injection. This reaction can be caused by the body's response to foreign material or by an immune response to methacrylate monomers. The inflammatory reaction can lead to pain, swelling, redness, and changes in skin texture.

# Management

Management of complications associated with methacrylate injection depends on the severity of the complication. In mild cases, topical treatment or nonsteroidal anti-inflammatory drugs may be used to relieve symptoms. In more severe cases, surgical treatment may be needed to remove necrotic tissue or to treat infections.

# Complications

The complications associated with methacrylate injection can be serious and potentially fatal. Some of the most common complications include:

Inflammatory reaction: As mentioned above, inflammatory reaction is a common complication associated with methacrylate injection. This can lead to pain, swelling, and changes in skin texture.

Infection: Infections can occur as a result of methacrylate injection. This may be due to contamination of the material or lack of proper sterilization during the procedure.

Tissue necrosis: Tissue necrosis is a serious complication that can occur when methacrylate are



Figure 2. The radiopaque material corresponding to methacrylate is observed on the x-ray

injected into areas near major blood vessels. Lack of blood supply can lead to death of surrounding tissue.

Pulmonary embolism: Pulmonary embolism is a serious complication that can occur when methacrylate are injected into areas near major blood vessels. Methacrylate monomers can enter the bloodstream and travel to the lungs, which can lead to a life-threatening pulmonary embolism.

Methacrylate injection is a common cosmetic procedure used to correct cosmetic defects. However, the complications associated with methacrylate injection can be serious and potentially fatal. Inflammatory reaction, infection, tissue necrosis, and pulmonary embolism are common complications associated with methacrylate injection.

Management of complications associated with methacrylate injection depends on the severity of the complication. In mild cases, topical treatments or nonsteroidal anti-inflammatory drugs may be used to relieve symptoms. In more severe cases, surgical treatment may be needed to remove necrotic tissue or to treat infections. It is important for patients and medical professionals to understand the risks associated with methacrylate injection and take steps to minimize these risks. This includes choosing a qualified and experienced medical professional, proper sterilization of equipment, and the use of safe injection techniques.

### Conclusion

The injection of methacrylate can provide a quick and economical solution for the correction of aesthetic defects. However, the complications associated with methacrylate injection can be serious and potentially fatal. Inflammatory reaction, infection, tissue necrosis, and pulmonary embolism are common complications associated with methacrylate injection. It is important for patients and medical professionals to understand these risks and take steps to minimize them.

#### Conflicts of interests

There was no conflict of interest during the study, and it was not funded by any organization.

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Jesus Albertinio Jarquín Delgado Universidad de Monterrey Nuevo Leon, Mexico