Dichloroacetic Acid (DCA) - IV Drip

What is Dichloroacetic Acid IV?

Improper energy metabolism can be a contributing factor in cancer cell development and tumour growth. Energy metabolism is carried out by structures known as mitochondria within the cell. Healthy cell mitochondria rely primarily on oxidative respiration to obtain their energy requirements.

In cancer cells however, energy is obtained through a process known as anaerobic glycolysis, which involves the breakdown of glucose and generates a large amount of lactic acid. This excess lactic acid is believed to help break down the extracellular matrix, facilitating tumour growth and metastases by activating angiogenesis and increasing cell mobility.

Furthermore, cancer cells have the ability to avoid apoptosis (programmed cell death) by inactivating their mitochondria, allowing them to become resistant from dying. Apoptosis necessary to prevent the continuation of cell malfunction and avoid uncontrolled cell proliferation.

DCA or Dichloroacetic Acid is a relatively simple molecule that is capable of interrupting the preferred anaerobic metabolism of cancer cells and moving them towards a more normalized energy production pathway and allowing for apoptosis when needed.

DCA helps assist in healthy cell metabolism and support aerobic oxidative respiration. Moreover, DCA has shown anti-proliferative and cancer-killing effects on specific cancer cells like those in glioblastoma mutiformes (GBM) - a difficult brain cancer to treat. DCA is particularly indicated in GBM because of its ability to cross the blood brain barrier.

Other cancer cell types that have shown sensitivity to DCA are breast, prostate, colorectal, pancreatic and endometrial cancers. Interestingly, DCA can have such effects on cancer cells while sparing healthy mitochondria and tissue.

DCA may also potentiate the effects of conventional cancer therapies such as chemo and radiation. It has also been shown to improve patient quality of life while undergoing such treatments.

The benefits of DCA are often most apparent when used in combination with other therapies. Frequently DCA will be used in conjunction with Poly-MVA and Vitamin C. With Poly-MVA there appears to be a synergistic effect where by lower doses of each may be used with improved signs of cell death.

Uses

- Reduce tumour size and tumour markers
- Prevent tumour angiogenesis
- Improve long-term outcomes
- Reduce cancer-related symptoms
- Manage pain
- Aid in cancer palliation

Ingredients

- Dichloroacetic Acid
- Normal Saline

Duration

30-60 minutes

Procedure

DCA can be administered both orally and intravenously. Many people have superior tolerance to the IV form and so this administration is often preferred. The dose is increased slowly to patient tolerance.

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Side Effects & Toxicity

DCA has been shown to be safe even in doses much higher than those used in cancer treatment and may be used therapeutically in both children and adults. Caution should be used in compromised liver function and in women who are pregnant or lactating. The most common toxicity is a dose dependent reversible tingling/numbness in the hands and feet called peripheral neuropathy.

Common

- Fatigue
- Temporary brain fog/confusion/memory loss
- Peripheral neuropathy
- Heartburn (oral)
- Nausea (oral)

Rare

- Sedation
- Tremors
- Hallucination
- Agitation
- Depression
- Tumour lysis syndrome

**Slowing the infusion rate, adding supportive nutrients and glutathione is often sufficient for mediating these effects.*

Patient Prep

Please arrive on time and well-hydrated. Please ensure that you have eaten prior to the intravenous treatment.

Please inform a lab technician and/or your doctor if you have any allergies; have a history of any reaction to intravenous treatment; are pregnant or breastfeeding; have liver disease; are taking blood sugar lowering medications, thyroid medications, or cancer medications; taking benzodiazepines or cannabinoids, or have any concerns regarding this treatment.

Please consult with your ND if your condition persists or worsens.

If you have any questions, please contact us at (604) 738-1012, ext.1

Notes