

## Instructions for Use Synvisc-One

### DESCRIPTION

Synvisc-One (hylan G-F 20) is a sterile, nonpyrogenic, elastoviscous fluid containing hylans. Hylans are derivatives of hyaluronan (sodium salt of hyaluronic acid) and consist of repeating disaccharide units of N-acetylglucosamine and sodium glucuronate. Hylan A has an average molecular weight of approximately 6,000,000 daltons and hylan B is a hydrated gel. Hylan G-F 20 contains hylan A and hylan B (8.0 mg  $\pm$  2.0 mg per ml) in buffered physiological sodium chloride solution (pH 7.2  $\pm$  0.3).

### CHARACTERISTICS

Synvisc-One is biologically similar to hyaluronan. Hyaluronan is a component of synovial fluid which is responsible for its elastoviscosity. The mechanical (elastoviscous) properties of hylan G-F 20 are, however, superior to those of synovial fluid and hyaluronan solutions of comparable concentration. Synvisc-One has an elasticity (storage modulus G') at 2.5 Hz of 111  $\pm$  13 Pascals (Pa) and a viscosity (loss modulus G'') of 25  $\pm$  2 Pa. Elasticity and viscosity of knee synovial fluid of 18- to 27-year-old humans measured with comparable method at 2.5 Hz are G' = 117  $\pm$  13 Pa and G'' = 45  $\pm$  8 Pa. Hylans are degraded in the body by the same pathway as hyaluronan, and breakdown products are nontoxic.

### INDICATIONS AND USAGE

Synvisc-One:

- is a temporary replacement and supplement for synovial fluid.
- is beneficial for patients in all stages of knee pathology.
- is most effective in patients who are actively and regularly using the affected knee.
- achieves its therapeutic effect through viscosupplementation, a process whereby the physiological and rheological states of the arthritic knee tissues are restored.

Viscosupplementation with Synvisc-One is a treatment to decrease pain and discomfort, allowing more extensive movement of the knee. *In vitro* studies have shown that hylan G-F 20 protects cartilage cells against certain physical and chemical damage.

Synvisc-One is only intended for intra-articular use by a physician to treat pain associated with osteoarthritis of the knee.

### CONTRAINDICATIONS

- If venous or lymphatic stasis is present, Synvisc-One should not be injected into the knee.
- Synvisc-One should not be used in infected or severely inflamed knees or in patients having skin diseases or infections in the area of the injection site.

## **WARNINGS**

- Do not inject intravascularly.
- Do not inject extra-articularly or into the synovial tissues and capsule. Adverse events, generally in the area of the injection, have occurred following extra-articular injection of Synvisc\*.
- Do not concomitantly use disinfectants containing quaternary ammonium salts for skin preparation because hyaluronan can precipitate in their presence.
- Some cases of skin necrosis have been reported after intra-articular use of hyaluronic acid. Patients should be instructed to contact their treating physician if signs of skin disorder (such as change of color or open sores) appear.

## **PRECAUTIONS**

- Synvisc-One should not be used if there is a large intra-articular effusion prior to the injection.
- As with any invasive joint procedure, it is recommended that the patient avoid any strenuous activities following the intra-articular injection, and resume full activities within a few days.
- Synvisc-One has not been tested in pregnant women or children under 18 years of age.
- Synvisc-One contains small amounts of avian protein and should not be used in patients with related hypersensitivities.

## **ADVERSE EVENTS**

- Adverse events involving the injected knee: transient pain and/or, swelling and/or effusion in the injected knee may occur after intraarticular injections of Synvisc-One. Cases of acute inflammation, characterized by joint pain, swelling, effusion and sometimes joint warmth and/or stiffness, have been reported following an intra-articular injection of Synvisc-One. Analysis of synovial fluid reveals aseptic fluid with no crystals. This reaction often responds within a few days to treatment with Non Steroidal Anti Inflammatory Drugs (NSAIDs), intra-articular steroids and/or arthrocentesis. Clinical benefit from the treatment may still be apparent after such reactions.
- Intraarticular infections did not occur in any of the clinical trials of Synvisc/Synvisc-One and have been reported only rarely during clinical use of Synvisc.
- Hypersensitivity reactions including anaphylactic reaction, anaphylactoid reaction, anaphylactic shock and angioedema have been reported.
- The post marketing experience has identified the following systemic events to occur rarely with Synvisc administration: rash, hives, itching, fever, nausea, headache, dizziness, chills, muscle cramps, paresthesia, peripheral oedema, malaise, respiratory difficulties, flushing and facial swelling.
- In the controlled clinical trial with Synvisc-One, the frequency and types of adverse events were similar between the group of patients that received Synvisc-One and the group that received placebo.

## **DOSAGE AND ADMINISTRATION**

- Remove synovial fluid or effusion before injecting Synvisc-One.
- Do not use Synvisc-One if package is opened or damaged.
- Inject at room temperature.
- To remove the syringe from the blister (or tray), take hold of it by the body, without touching the plunger rod.
- Administer using strict aseptic procedures, taking particular care when removing the tip cap.
- Twist the grey tip cap before pulling it off, as this will minimise product leakage
- Use an 18 - 20 gauge needle.
- To ensure a tight seal and prevent leakage during administration secure the needle tightly while firmly holding the Luer hub.
- Do not over tighten or apply excessive leverage when attaching the needle or removing the needle guard, as this may break the tip of the syringe.
- Do not resterilise Synvisc-One.
- Inject into the synovial space only.
- The syringe contents are for single use only.

## **DOSAGE GUIDELINES**

The recommended treatment regimen is one injection in the knee. The injection may be repeated 6 months after the first injection, if justified by the patient's symptoms.

## **DURATION OF EFFECT**

Hylan G-F 20 treatment affects only the injected knee; it does not produce a general systemic effect.

Prospective clinical data in knee osteoarthritis patients have shown benefit of treatment up to 26 weeks, following a single Synvisc-One injection.

## **CONTENT PER ml**

Each 1 ml contains: hylan 8.0 mg, sodium chloride 8.5 mg, disodium hydrogen phosphate 0.16 mg, sodium dihydrogen phosphate hydrate 0.04 mg, water for injection q.s.

## **HOW SUPPLIED**

The contents of the syringe are sterile and nonpyrogenic. Store between +2°C and +30°C. Do not freeze. Synvisc-One is supplied in a 10 ml glass syringe containing 6 ml hylan G-F 20.

\*Synvisc (hylan G-F 20) is a 3 x 2 ml treatment regimen supplied in a 2.25 ml syringe. Synvisc is administered by intra-articular injection once a week (one week apart) for a total of three injections.

For use in Canada only

**For orders, product information, product and medical complaints call 1-800-265-7927.**

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