Laennec Full Product Information

Laennec is the ethical drug manufactured with JBP's unique technologies for effective extraction of variety of growth factors, cytokines, and other physiologically active substances from the human placenta. For instance, HGF (hepatocyte growth factor) promotes the proliferation of hepatic parenchymal cells for recovery of a damaged liver. Our product safety is ensured by the most rigid safety measures among existing scientific standards.

COMPOSITION
Each 2 mL ampoule of this product contains 112 mg of a water-soluble human placenta hydrolysis by extracting.

Component | Content | Remarks
Active ingredient | Water-soluble human placenta hydrolysis by extracting | 112 mg | Component derived from human placenta
Inactive ingredients | pH adjuster | Sufficient quantity | –
Pepsin (porcine gastric mucosal extract) and lactose (bovine, milk) are used in the manufacturing process.

PRODUCT DESCRIPTION
This product is a light yellow-brown or yellow-brown transparent liquid with a distinctive odor. The pH level ranges from 5.5 to 6.5 and the osmotic pressure ratio (to physiological saline) is approximately one.

INDICATION(S)
Improvement of hepatic function in chronic hepatic disease.

DOSAGE AND ADMINISTRATION
A normal adult dose is a 2 ml subcutaneous or intramuscular injection once daily. According to symptoms, the dose can be increased to 2 or 3 times daily.

***PRECAUTIONS
1. Careful Administration (LAENNEC should be administered with care in the following patients.)
Patients predisposed to allergies.

2. Important Precautions
[Explanation to patients]
The necessity of this product for disease treatment, as well as the fact that despite the employment of safety measures to prevent the spread of infectious agents at the time of manufacture of this product, the risk of transmission of infectious agents from raw materials derived from human placenta cannot be completely eliminated, should be explained to the patient and every effort made to obtain their understanding.

(1) This product is manufactured from the extract of human placenta delivered full-term in Japan. Each placenta donor has received a medical interview about medical history, travel history, etc. Furthermore, after screening for viral and bacterial infections by serological examination etc., nucleic acid amplification test (NAT) is performed on HBV-DNA, HCV-RNA and HIV-1-RNA. In addition, it has been confirmed that high-pressure steam sterilization treatment at 121 °C. for 20 minutes in the production process of this drug has an inactivating effect on various viruses. This product has passed HBV – DNA, HCV -RNA, HIV – 1 – RNA, HTLV – I – DNA, parvovirus B 19 -DNA nucleic acid amplification test (NAT) in product testing. However, there is a possibility that the virus below the limit is contaminated. Since the possibility of infection by this drug administration can not be denied, observe the course after administration adequately.

(2) There have been no reports of transmission of infections, such as variant Creutzfeldt-Jakob disease (vCJD), through the administration of this product in Japan or abroad to date. Nevertheless, it is theoretically impossible to eliminate the risk of transmission of such agents as vCJD completely when administering this product, therefore, a enough explanation should be made to the patient, and the product administered only after thorough examination of the necessity of treatment.

(3) Attention must be paid to the indication of this product, which is for the improvement of liver function in chronic liver diseases, and off-label use should be avoided.

3. Adverse Reactions
A total of 10 cases (3.7 %) of adverse reactions or suspected adverse reactions to this product were reported among the 273 patients eligible for safety evaluation in a clinical study performed during implementation of a re-evaluation of drug efficacy (re-examination). The most frequently observed adverse reaction was injection site pain reported in 7 patients (2.6 %), and hypersensitivity (such as rash, fever, and itching), injection site indurations, and gynaecomastia, each in 1 patient (0.4 %). The causal relationship between gynaecomastia and this product is uncertain. No abnormal changes in laboratory values were observed.

(1) Clinically significant adverse reactions
Shock (incidence unknown): Since this product contains proteins, amino acids and others derived from human tissue, it may cause shock. The patient should be carefully monitored, and if any signs of abnormalities are observed, administration should be discontinued immediately and appropriate measures taken.

(2) Other adverse reactions (in descending order of occurrence)
Injection site pain – 2.56%
Hypersensitivity (rash, fever, itching etc.) – 0.37%
Injection site indurations – 0.37%
Gynaecomastia – 0.37%
Impaired liver function (increased AST, ALT etc.) Note – Incidence Unknown
Headaches – Incidence Unknown
Note: Administration should be discontinued if impaired liver function is suspected.

4. Use in the Elderly
Since elderly patients often have reduced physiological function, it should be administrated with care.

5. Pediatric use
The safety of this product in premature infants, newborns, infants, toddlers or children has not been established (No clinical data available).

6. Overdosage
Overdosage of this product and the resulting efficacy or safety has not been established (No clinical data available).

7. Precautions concerning Use
Injection site:
In order to avoid any effect on tissue or nerves, this product should be injected subcutaneously or intramuscularly taking the following precautions:
a) Care should be taken when administering to avoid nerve pathways at the injection site.
b) In the case of repeated injections, avoid injecting into the same site by alternating left and right sides etc.
c) On insertion of the needle, if the patient complains of intense pain or if blood backflow is observed, the needle should be removed immediately, and injected into a different site.

Opening the ampoule:
It is desirable to wipe the part of the ampoule to be cut with an ethanol swab before opening.

PHARMACOKINETICS
The bioactive ingredients of LAENNEC are extracted from human placenta, and the primary pharmacological action of this product cannot be attributed to any single substance or group of substances. Therefore, pharmacokinetic evaluation (absorption, distribution, metabolism, and excretion) of this product has not been established.

CLINICAL STUDIES
Double blind comparative study for chronic hepatitis and liver cirrhosis.
Double-blind crossover study evaluating the effect of Laennec in 124 chronic hepatitis or liver cirrhosis patients in Japan revealed that serum transaminase (GOT, GPT) levels improved significantly by Laennec.

PHARMACOLOGY

1. Promotional effect on liver regeneration – Laennec was administered at higher than the clinical dose to healthy rats after 70 % partial hepatectomy and a comparison of liver weight was made over time with control groups. The results revealed a significant promotional effect on liver regeneration in the Laennec groups.

2. Stimulatory effects on cellular DNA synthesis – In vitro and in vivo studies revealed significant DNA synthesis promotion compared to the control groups.

3. Inhibitory effect on experimental liver injury – In vivo studies showed Laennec significantly decreased serum levels of cytosolic enzymes and bilirubin, and improved histopathology.

4. Anti-fatty liver effect – In vivo study showed a significant reduction in total liver lipids and cholesterol compared with controls.

5. Inhibitory effect on liver fibroplasia – Laennec at a dose higher than clinical dose exhibited inhibitory effects on fibroplasia in rat livers induced by repeated CCl_4 administration.

PHYSICOCHEMISTRY

This product is a human-placental extract, and contains various biologically active substances. However, the active ingredients cannot be identified as a single substance or group of substances.

PRECAUTIONS FOR HANDLING

As Laennec is designated as a specific biological product, the drug name (brand name), its manufacturing No. or manufacturing code (Lot No.), date of use, the name and address etc. of patients should be recorded upon administration, and the record should be stored for at least 20 years.

Packaging

Boxes of 10 and 50 ampoules

References

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