

CARIRENTM

Carica Papaya Leaf Extract 1100 mg Tablets

Indication:

- Thrombocytopenia associated with Liver Disease
- Thrombocytopenia in Hepatitis C infection
- Immunomodulator
- Anti-Oxidant
- In Dengue associated thrombocytopenia
- As adjuvant therapy of Anti-cancer agents

Mechanism of action:

- High-density lipoprotein (HDL) apolipoprotein E contents are increased in cirrhosis is correlated with the inhibition of platelet aggregation.¹
- Chronic hepatitis C is associated with a variable degree of thrombocytopenia and as the disease progresses, the platelet count decreases.²
- Among thrombocytopenia patients, carica papaya leaves extract has shown increase in the ALOX12 gene activity (Arachidonate 12-Lipoxygenase is known to be associated with increased megakaryocyte production) by 15-folds.³
- PTAFR (Platelet Activating Factor Receptor) gene (known to be responsible for increased platelet production and aggregation) was expressed 13.42-folds among thrombocytopenia patients taking carica papaya leaves extract.³
- Carica papaya leaf extract mediates a Th1 type shift in human immune system, suggesting that it potentially provides the means for the treatment and prevention of selected diseases such as cancer, various allergic disorders, and can serve as immunoadjuvant for vaccine therapy.⁴
- Carica papaya leaf extract directly acts on platelet and possesses a dengue specific neutralizing effect on dengue viral infected plasma that exerts a protective role on platelets.⁵

Dosage:

One to three Tablets a day or as suggested by healthcare professional.

Storage:

Store in cool & dry place. Keep away from direct sunlight and moisture.

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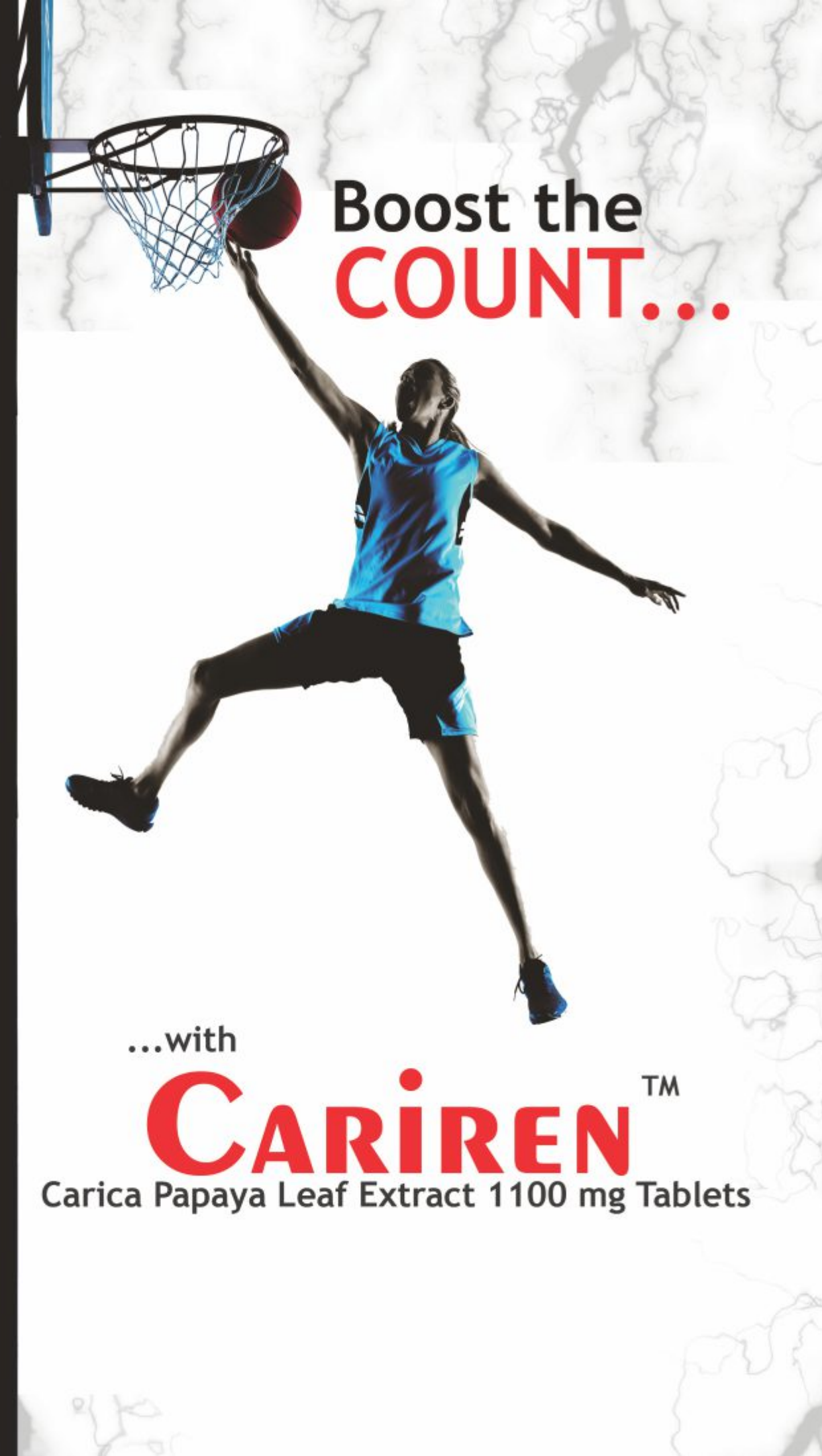
I am: _____

Call me on: _____

Mail me at: _____

4,50,000/ μ L

1,50,000/ μ L



**Boost the
COUNT...**

...with

CARIRENTM

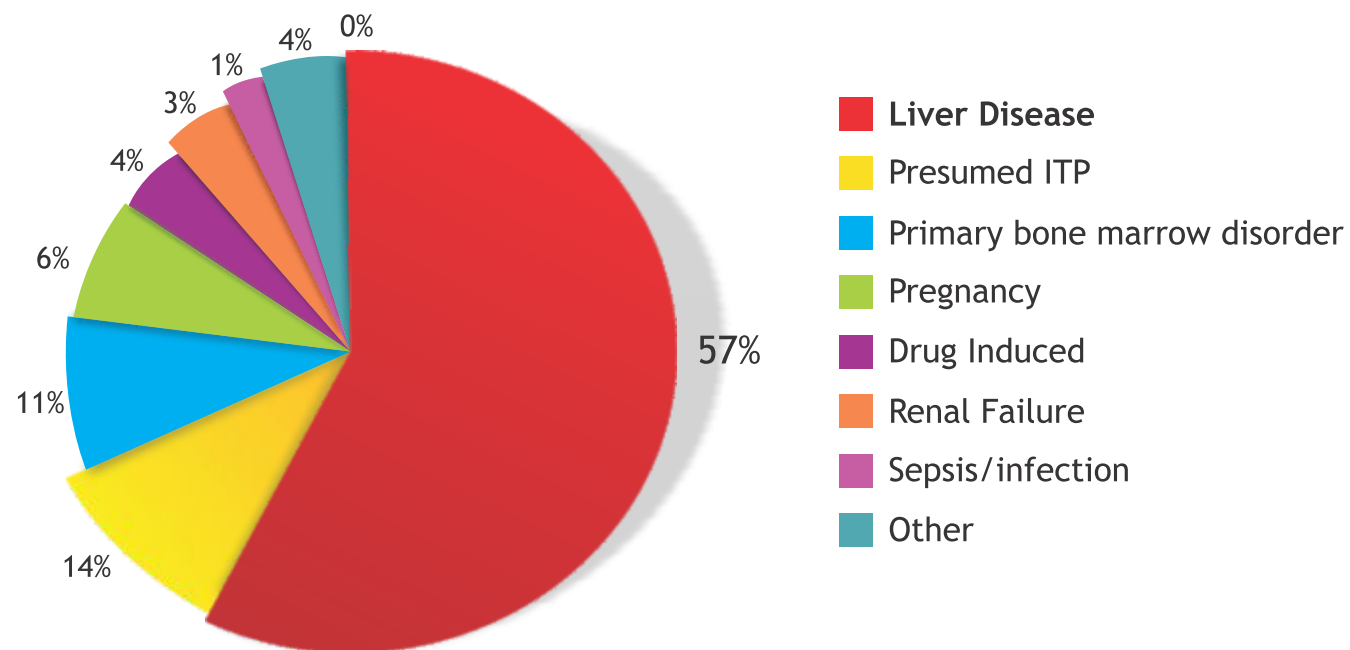
Carica Papaya Leaf Extract 1100 mg Tablets

THROMBOCYTOPENIA¹

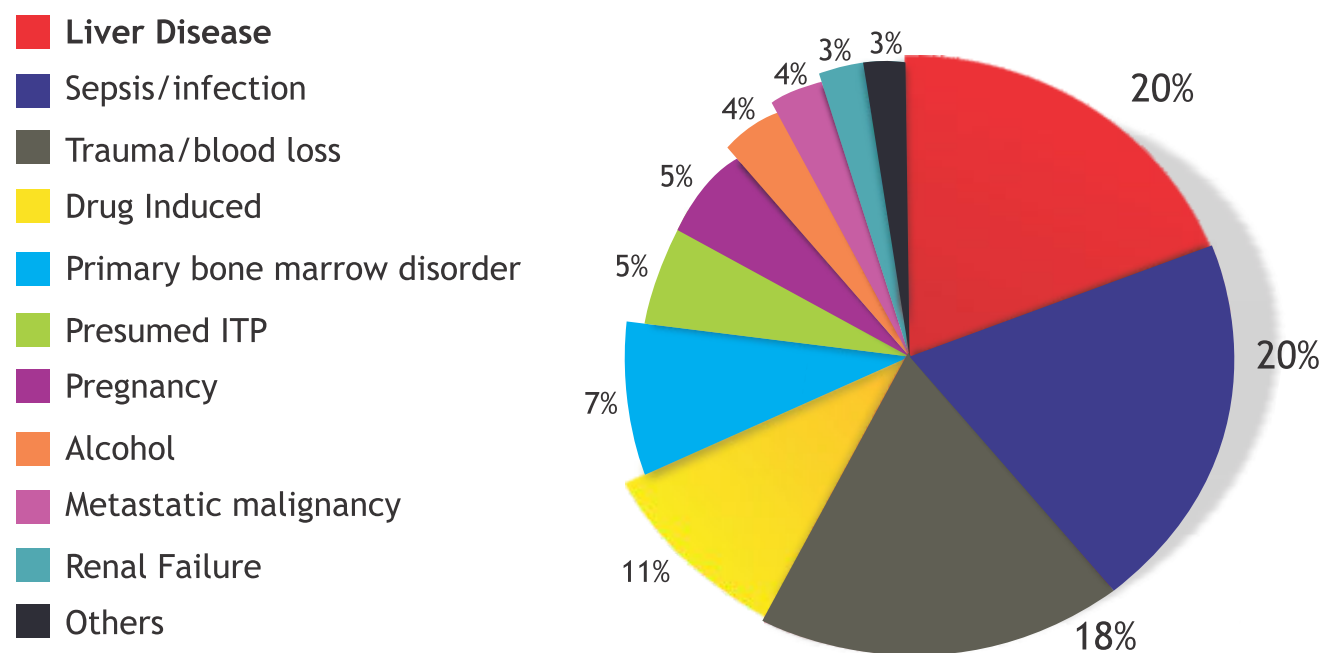
Thrombocytopenia (platelet counts $<150,000/\mu\text{L}$) is a common complication in patients with chronic liver disease (CLD), and is **reported in 76% of cirrhotic patients**. The clinical significance of mild thrombocytopenia ($>75,000/\mu\text{L}$ - $<150,000/\mu\text{L}$) is minimal and usually does not interfere with treatment or management decisions. Moderate thrombocytopenia ($50,000/\mu\text{L}$ - $75,000/\mu\text{L}$) is observed in approximately **13% of cirrhotic patients**. Severe thrombocytopenia ($< 50,000/\mu\text{L}$) can be associated with significant morbidity. Multiple factors can contribute to the development of thrombocytopenia, including splenic platelet sequestration, bone marrow suppression by chronic hepatitis C infection, and antiviral treatment with interferon-based therapy.

MAJOR CAUSES OF THROMBOCYTOPENIA²

A. Causes of thrombocytopenia ($<100 \times 10^9/\text{L}$) in Outpatients (n=109)



B. Causes of thrombocytopenia ($<100 \times 10^9/\text{L}$) in Inpatients (n=114)



$100 \times 10^9/\text{L} \approx 1,00,000/\mu\text{L}$

Source: Q J Med: 2013

MECHANISMS OF THROMBOCYTOPENIA IN CHRONIC HEPATITIS C:³

Decreased platelet production (central mechanism)
Bone marrow suppression:
• Direct HCV infection of megakaryocytes
• Decreased thrombopoietin secretion
• Interferon therapy

Platelet sequestration with spleen (most common mechanism in cirrhosis)

Increased platelet destruction (peripheral mechanism)
Autoimmune mechanism

Decreased number of circulating platelets

IMPACT OF THROMBOCYTOPENIA:

- Thrombocytopenia impacts routine care of patients with CLD, potentially postponing or interfering with diagnostic and therapeutic procedures including liver biopsy, antiviral therapy, and medically indicated or elective surgery.
- Severe thrombocytopenia can significantly increase the risk of bleeding. Cerebral hemorrhage or hemorrhage from gastrointestinal (GI) can occur.

WHY CARIREN???

- Papaya is known as "A powerhouse of nutrients" and was reputedly called the "The fruit of Angels" by Christopher Columbus in the 20th century.⁴
- Papaya leaf contains anti-oxidant vitamins and minerals which may help to increase the haemoglobin, hematocrit, Red blood cells, thrombocytes and total protein contents.⁴
- Papaya leaf extracts possess biological membrane stabilization properties preventing stress-induced destruction of the plasma membrane.⁴

References:-

1. Journal of Hepatology; 48: 1000-1007: 2008
2. Q J Med: 2013
3. J Gastrointest Liver Dis; 19(4): 381-385: 2010
4. International Journal of Applied Biology and Pharmaceutical Technology; 6(3): 93-98: 2015
5. Journal of Hepatology; 48: 1000-1007: 2008

