

( )  
 mg/dl  
 /  
 % / /  
 % / %  
 % / % /  
 % / % /  
 : % /  
 mg/dl  
 mg/dl

LDH

(pleural effusion)

( )

( )

(CHF)

Pillay

( )

(specific gravity)

( ) chakko

( )

gr/L

LDH

LDH

LDH

**(Material and Method)**

B.K

PCR-

lateral Decubitus

RF CHF

Total Bilirubin – Lactate Dehydrogenase- Total cholesterol – Total protein

TB

Multichannel Analyzer

NPV (Positive predictive value) PPV  
Efficiency (negative predictive value)

(Enzymatic UV gr/lit  
Optimized method)

Sensitivity: TP/ (TP + FN) Specificity: TN/ (TN + FP)

CO BAS MYRA

Efficiency: (TP+TN)/ (TP + TN + EP + FN)  
(True positive) :TP

DCA

Enzymatic calorimetric

(True Negative) :TN

(False positive) :FP

CHF

:(Congestive Heart Failure) CHF -

(False Negative) :FN

.CHF

:Renal Failure -

(% ) (% )

± /

:(% / ) Malignancy

(% )

(% ) Infective

/ LDH LDH (% / ) (% / ) CHF  
 ( ) % ( ) %  
 LDH ( ) % % ( ) % / mg/dl  
 ( ) % % (LDH>200) % /  
 % % /  
 ( ) LDH NPV % PPV .  
 LDH % /  
 . ( )  
 % %  
 . ( ) P.P.V . % % % / Efficiency  
 ( ) % / % N.P.V  
 (1.55. mmol/lit) /  
 . ( ) % %  
 . ( ) % % Efficiency  
 % % / % / % % /  
 (LDH>200) LDH  
 (1.10mmol/lit) 43mg/dl  
 ( ) % % % / % % / Efficiency  
 % % / LDH LDH  
 LDH  
 Efficiency  
 . % / % % /  
 /  
 % % ( )  
 ( )  
 % / ( )  
 ( ) % % ( )  
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 ( ) % ( )  
 . (% / ) ( )  
 . ( ) % %  
 /  
 ( ) % %  
 % % / ( )

) ( /  
 ( mg/dl  
 mg/dl mg/dl  
 /  
 mg/dl  
 (HDI, LDL)  
 . ( )

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| Cause             | No.of patients | %            |
|-------------------|----------------|--------------|
| <b>Transudate</b> | <b>7</b>       | <b>17.5</b>  |
| CHF               | 5              | 12.5         |
| RF                | 1              | 2.5          |
| Cirrhosis         | 1              | 2.5          |
| <b>Exudate</b>    | <b>33</b>      | <b>82.5%</b> |
| Neo Plastic       | 13             | 32.5%        |
| Infective         | 12             | 30%          |
| Tuberculosis      | 8              | 20           |

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|             | N  | Cholestrol |    | Bil P/S |    | Cholestrol P/S |    | Total Protein |    | LDH |    | LDH P/S |    |
|-------------|----|------------|----|---------|----|----------------|----|---------------|----|-----|----|---------|----|
|             |    | TP         | FN | TP      | FN | TP             | FN | TP            | FN | TP  | FN | TP      | FN |
| Exudate     |    |            |    |         |    |                |    |               |    |     |    |         |    |
| Total       | 33 | 28         | 5  | 33      | 0  | 30             | 3  | 30            | 0  | 30  | 3  | 29      | 4  |
| Malignancy  | 13 | 11         | 2  | 13      | 0  | 12             | 1  | 12            | 1  | 13  | 0  | 12      | 1  |
| Pneumonia   | 12 | 9          | 3  | 12      | 0  | 11             | 1  | 10            | 2  | 10  | 2  | 10      | 2  |
| T.B         | 8  | 8          | 0  | 8       | 0  | 7              | 1  | 8             | 0  | 7   | 1  | 7       | 1  |
| Transudates |    | TN         | FP | TN      | FP | TN             | FP | TN            | FP | TN  | FP | TN      | FP |
| Total       | 7  | 7          | 0  | 2       | 5  | 7              | 0  | 7             | 0  | 7   | 0  | 7       | 0  |
| CHF         | 5  | 7          | 0  | 1       | 4  | 7              | 0  | 7             | 0  | 7   | 0  | 7       | 0  |
| *Others     | 2  | 2          | 0  | 1       | 1  | 2              | 0  | 2             | 0  | 2   | 0  | 2       | 0  |

LDH

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LDH

Renal Failure

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CHF: Congestive Heart Failure; FN: False negative

TN: True Negative TP: True Positive

| Method                | Efficiency % | Sensitivity % | Specifity % | PPV % | NPV % |
|-----------------------|--------------|---------------|-------------|-------|-------|
| P/S Protein           | 92.5         | 90.6          | 100         | 100   | 70    |
| P/S LDH               | 90           | 87.7          | 100         | 100   | 63.6  |
| LDH                   | 92.5         | 90.9          | 100         | 100   | 70    |
| Cholestrol (>43mg/dl) | 87.5         | 84.8          | 100         | 100   | 58.3  |
| P/S Bilirubin         | 87.5         | 100           | 28.5        | 86.8  | 100   |

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