Report

Results:

Loading network from: endocancer.net
lnm and dss5 values for yes:
alpha: 0.1
Level 1

The chance of Lymph node metastasis being yes = 0.012315323206063052

What are the factors that support above prediction of Lymph node metastasis?
CA125 = lt_35 (Very important)
Preoperative grade = grade_1
L1CAM = negative

What are the factors that do not support above prediction of Lymph node metastasis?
None

Level 2

How does the model utilize the above factors to predict Lymph node metastasis?
As the immediate causes of Lymph node metastasis the model uses:
Platelets : 0.2 % increase in lt_400
Enlarged nodes CT : 3.7 % increase in no
LVSI : 7.5 % increase in no
Myometrial invasion : 1.2 % increase in lt_50
Recurrence : 7.5 % increase in no
Adjuvant therapy : 7.0 % increase in no
p53 : 8.3 % increase in wildtype
Postoperative grade : 21.5 % increase in grade_1

Level 3

What are the factors that support above prediction of Platelets?
CA125 = lt_35
Preoperative grade = grade_1
L1CAM = negative

What are the factors that do not support above prediction of Platelets?
None

What are the factors that support above prediction of Enlarged nodes CT?
CA125 = lt_35
Preoperative grade = grade_1
L1CAM = negative

What are the factors that do not support above prediction of Enlarged nodes CT?
None

What are the factors that support above prediction of LVSI?
Preoperative grade = grade_1
CA125 = lt_35
L1CAM = negative

What are the factors that do not support above prediction of LVSI?
None

What are the factors that support above prediction of Myometrial invasion?

L1CAM = negative

What are the factors that do not support above prediction of Myometrial invasion?
Partially contradicting:
CA125 = lt_35
Preoperative grade = grade_1

What are the factors that support above prediction of Recurrence?
Preoperative grade = grade_1
CA125 = lt_35
L1CAM = negative

What are the factors that do not support above prediction of Recurrence?
None

What are the factors that support above prediction of Adjuvant therapy?
Preoperative grade = grade_1
L1CAM = negative
Partially supporting:
CA125 = lt_35

What are the factors that do not support above prediction of Adjuvant therapy?
None

What are the factors that support above prediction of p53?
Preoperative grade = grade_1
CA125 = lt_35
L1CAM = negative

What are the factors that do not support above prediction of p53?
None

What are the factors that support above prediction of Postoperative grade?
Preoperative grade = grade_1
CA125 = lt_35
L1CAM = negative

What are the factors that do not support above prediction of Postoperative grade?
None

Questions:

- The thing that this Bayesian network explanation gives is how the different factors contribute to the prediction of Lymph Node Metastasis and the associated relationship between variables. You can also track how each factor supports or contradicts the prediction, and it gives more transparency on how the model works inside.
- To be honest, Level 2 seems the most useful at a glance, since it mentions the increases or decreases in the immediate causes of Lymph node metastasis, which seems like the easiest way to interpret the model. Level 3 does show more in depth relationships, but not in what percentage they occur. It also shows what other factors support the one mentioned, but that does not seem very necessary to me, since you can already see in what way they are supporting each other from level 2 if they increase or decrease.
- You are limiting yourself to the variables given in this explanation method, which essentially increases bias. This is because you are only looking at the explanatory features that you already have and not exploring new ones. Also, you do not have a specificity for individual cases, because some features show support, but it does not offer detail on why a combination leads to the final prediction in the individual cases. I also found it a bit harder to conceptualize, because you need understanding as to how the numbers would influence the way you perceive the results. Data could also be biased.