

Lymphomes Malins Non Hodgkiniens de l'Estomac

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1 Références

- Site Web de *Peter Lucas* (University of Nijmegen)
<http://www.cs.ru.nl/~peter1/teaching/DM/>
- CancerBACUP online
<http://www.cancerbacup.org.uk/>

2 Questions

Prédire l'attribut 5-YEAR-RESULT du fichier `nh1.arff`.

- Pour les techniques `bayes.NaiveBayes`, `rules.{oneR, Prism, PART}`, `lazy.{IB1, IBk}`, `trees.{Id3, J48}`, comparer la performance en utilisant tenfold *Cross-validation* et *Percentage split* 66% training set, 34% test set. Utiliser *Preprocess* si le besoin se fait sentir.
- Résumer et interpréter les résultats; faire des recommandations aux médecins.

La suite de ce texte est rédigée en anglais.

3 Non-Hodgkin Lymphoma of the Stomach

Non-Hodgkins lymphomas (*un lymphome*) are a type of cancer of the lymphatic system. There are two main types of lymphoma. One is called Hodgkins disease (named after Dr Hodgkin, who first described it). The other is called non-Hodgkins lymphoma. There are about 20 different types of non-Hodgkins lymphoma.

Primary non-Hodgkin lymphoma (NHL) of the stomach is a relatively rare malignant disorder, accounting for about 5% of gastric tumours. Until recently, the aetiology of gastric NHL was unknown; it is now generally believed that the main factor in the pathogenesis of this disease is a chronic infection with the bacterium *Helicobacter pylori*.

Various treatment modalities are in use for this disease, varying from chemotherapy, radiotherapy, surgery and, more recently, *H. pylori* eradication, i.e. elimination of the bacterium from the stomach by means of antibiotic drugs, to particular combinations of these therapies. Due to the rare nature of the condition, reports on clinical experience with specific therapeutic regimes usually concern small numbers of patients.

4 Dataset

4.1 Pretreatment Variables

AGE numeric

GENERAL-HEALTH-STATUS poor, average, good

BULKY-DISEASE no, yes

Yes if tumour size exceeds 10 cm in maximal diameter as observed endoscopically, or if there is invasive growth into surrounding tissues or organs.

HISTOLOGICAL-CLASSIFICATION low-grade, high-grade

Grading refers to the appearance of the lymphoma cells under the microscope. The grade gives an idea of how quickly the lymphoma may grow and develop. Most non-Hodgkins lymphomas fall into one of two main categories:

Low-grade (or slow-growing) These have a very slow growth rate and may need little or no treatment for months or possibly years. When they do need treatment they are likely to shrink down, or even disappear completely, but are likely to come back again at some time in the future.

High-grade (or faster-growing) These types grow more quickly. They are more likely to cause symptoms and usually need immediate treatment. However, they are more likely to be completely cured than low-grade lymphomas. The usual treatment is intensive chemotherapy.

CLINICAL-STAGE I, II1, II2, III, IV

The stage of a lymphoma is a term used to describe where it is in the body, how many lymph glands are affected and whether it has spread to other lymph glands or other organs. A commonly used staging system is described below:

Stage I One group of lymph nodes is affected.

Stage II Two or more groups of nodes are affected, but the lymphoma is only on one side of the diaphragm. The diaphragm is the sheet of muscle under the lungs that plays a large part in our breathing. The part of the body above the diaphragm is considered the upper half, and below the diaphragm is considered the lower half of the body.

Stage III The lymphoma is in lymph nodes on both sides of the diaphragm.

Stage IV The lymphoma has spread beyond the lymph nodes, for example to other organs such as the bone marrow, liver or lungs.

CLINICAL-PRESENTATION none, hemorrhage, perforation, obstruction

Hémorragie *Écoulement de sang, hors des vaisseaux qui doivent le contenir.*

4.2 Treatment Variables

CT-RT-SCHEDULE none, RT, CT, CT-next-RT

RT Radiotherapy.

CT Chemotherapy.

CT-next-RT Chemotherapy followed by iceberg radiotherapy.

SURGERY none, palliative, curative

Curative surgery means total or partial resection of the stomach with the complete removal of locoregional tumour mass.

4.3 Posttreatment Variable

5-YEAR-RESULT alive, death