An Approach for Effective Diagnosis of Diseases

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Abstract

In this paper is based on Disease Analysis, as we can say that system is work as a Artificial Doctor. General Doctor faced the problem about disease analysis. Patients do not say their symptoms correctly to the doctor because sometimes they forget to tell and sometimes they are not sincere about the symptoms. There is one more problem faced by the general medicine doctor that sometimes they forget to ask some symptoms to the patients, and if they ask all then this is so time consuming for them to analysis a patient. In proposed system, we analysis the disease according to the symptoms of patient and gave the possibility of the diseases. It is like an assistant doctor with more intelligently

Keywords: General Disease Diagnosis, Medical Diagnosis, medical knowledge

Introduction

MEDICAL diagnosis always has been an art: we remember famous doctors as well as famous painters or composers throughout the history. Again, who is called an artist? A person who can carry out something those others cannot, and that is exactly what a good physician does during a medical diagnosis procedure. He (or she) employs his educations, experiences, and talent, to diagnose a disease. A diagnosis procedure usually starts with the patient complaints and the doctor learn more about the patient situation interactively during an interview, as well as by measuring some metrics such as blood pressure or the body temperature. The diagnosis is then determined by taking the whole available patients status into the account. [1]

AI doctors different from human doctors is that they aren't limited by human capacity. AI doctors, having millions of points of data to draw on, will remember where a human doctor might forget. Its help the MD (Medicine) Doctor to analysis the patient's diseases. And this system develops a system for doctor's to analysis the disease in effective manner Also giving effective results which helps the doctor to analysis the disease.

LITERATE SURVEY

Hypertension is a disease that affects a wide range of the population, particularly the elderly after the age of 55. Hypertension is caused by Blood Pressure. Blood Pressure is the force of blood pushing against blood vessel walls. The heart pumps blood into the arteries (blood vessels), which carry the blood throughout the body. If blood pressure is extremely high, there may be certain symptoms such as Severe headache, Fatigue, disorientation, Vision problems, Chest pain, Difficulty in breathing, irregular heartbeat and Blood in the urine. Hypertension can cause Stroke, Heart failure, Heart attack, Kidney failure and Vision problems. Men have a greater likelihood of developing high BP than women. This varies according to age and among various ethnic groups. In some cases, computer-based assisted diagnoses have been claimed to be even more accurate than those by clinicians. Predicting the outcome of it is one of the most interesting and challenging tasks in which a Neural Network application is developed. Neural Networks are well suited to problems that people use good at solving but for which computers are not. Neural Networks provide a very general way of approaching problems. [2]

The diagnosis of diseases is a vital and intricate job in medicine. The recognition of heart disease from diverse features or signs is a multi-layered problem that is not free from false assumptions and is frequently accompanied by impulsive effects. Thus the attempt to exploit knowledge and experience of several specialists and clinical screening data of patients composed in databases to assist the diagnosis procedure is regarded as a valuable option. This research work is the extension of our previous research with intelligent and effective heart attack prediction system using neural network. A proficient methodology for the extraction of significant patterns from the heart disease warehouses for heart attack prediction has been presented. Initially, the data warehouse is pre-processed in order to make it suitable for the mining process. Once the preprocessing gets over, the heart disease warehouse is clustered with the aid of the K-means clustering algorithm, which will extract the data appropriate to heart attack from the warehouse. Consequently the frequent patterns applicable to heart disease are mined with the aid of the MAFIA algorithm from the data extracted. [3]

An artificial neural network in typical disease diagnosis has been investigated. The real procedure of medical diagnosis which usually is employed by physicians was analyzed and converted to a machine implementable format. Then after selecting some symptoms of eight different diseases, a data set contains the information of a few hundred cases was configured and applied to a MLP neural network. The results of the experiments and also the advantages of using a fuzzy approach were discussed

as well. Outcomes suggest the role of effective symptoms selection and the advantages of data fuzzificaton on a neural networks-based automatic medical diagnosis system. [1]

MEDICAL DIAGNOSIS PROBLEMS

The major task of medical science is to prevent and diagnose the diseases. Here our Focus is the second task, which as mentioned before, is not a direct and simple task at all. [1]

- Generally doctor does not remember each and everything. In some cases, sometimes doctor takes the patient symptoms normally, they don't take much care about to identify the particular disease and as they find the disease they are too late to cure it. [11]
- As consider, in some cases sometimes doctor or the patient take the tumor normally and treat it normally, as they find later that it is a cancer, at that time it is too late to cure it. So it is a major problem. [11]
- The quality of diagnosis is totally depends on the physician talent as well as his/her experiences. [1]
- The training procedure of doctors, in particular specialists, is a lengthy and expensive one. So even in developed countries we may feel the lack of MDs. [11]

PROPOSED SOLUTION

For this mechanism we are giving the proposed solution flow chart. In this flow chart. We are considered all possibility of condition of patient. Its helps to according to symptoms identify the disease.
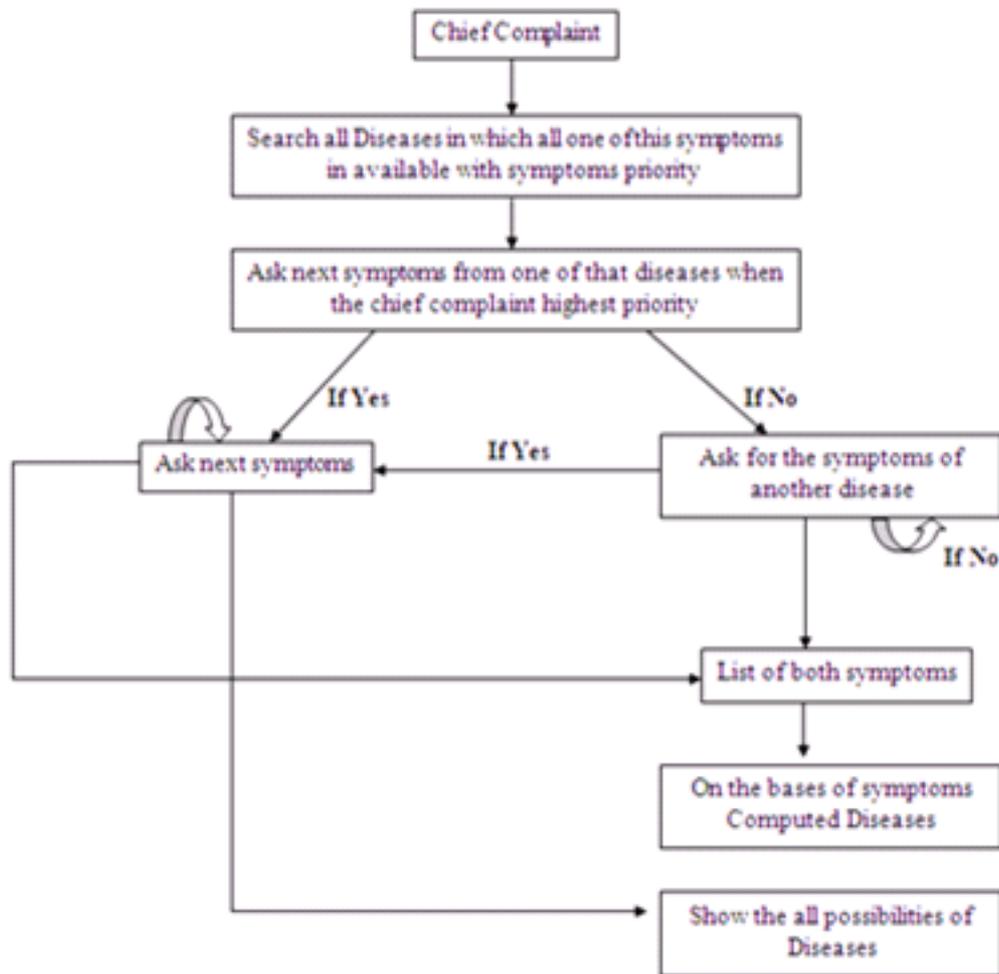
Fig: Proposed Flow Chart

Chief Complaint:
Chief complaint mean major problem said by patient. Its 1st priority of major symptom. Ex. Fever, Loss of appetite, Headaches, Chills, Cough, Abdominal pain, Jaundice, Hair lost, Breathing Problem, Blood in urine, Weight loss. Etc. [5]

Asking general question, symptoms & History of present illness:
According to chief complaint asking general question and its mechanism find out the other symptoms and decide the priority of the symptoms

Computation of diseases:
Its phase computation of Possibilities diseases show the result
    Its computation base of real data collection and history of previous data.

After finalization of Possibilities diseases and also asking to patient if any medicine is prohibited or bad reaction to your body. It's most important suggestion to doctor giving medicines.

ALGORITH
- Ask patient about his complaints

If(C. C. >0)// If Chief Complaint in >0 then,
Start diseases order by p-id.

- while D. ID>0//if diseases id >0 then,

//According to Chief Complaint System ask for symptoms
For each Symptom is D. ID
{
If Symptom then,
Symptom++; D. ID; //Ask next symptoms
Else// Symptoms are not available
Exit for//condition is terminated from loop
}

- For (j=d(0);j<=d(max);j++)

{

- For (i= Symptom(0);i< Symptom. (max);i++)

{
If symptoms and its priority both condition are true than diseases id declare to
 Global disease id (D. ID)

- If Symptom. 1== Symptom (i) && Symptom1. Priority== Symptom (i). Priority

Than
Global D. ID=Did(j);

- Else // condition is not satisfy its terminated

If we get 3 symptoms in true than diseases id declare to
 Global disease id (D. ID)

- If Symptom1= Symptom(i)than

 Count++
 If count>= 3 than
 Global D. Id=D. Id(j);

- Else// condition is not satisfy its terminate If above condition are not satisfy than,
- Message. box ("Can't Diagnosis");

end if

```
end if
}
}
Else
 Exit
End
}
```

RESULT

Snap Short: Show the Possibility of diseases

This is final form in this form we will select a patient's name and according to his name diseases detail will be show and this result is based on Registration form, Chief Complaint Detail, Diseases Details, Patient Symptom detail all form are internally corelated and also helping the correct diagnosis of diseases.

Conclusion

This system that will help the doctor to identify the particular disease. So if they find the possible disease on time then there will be possibility to cure it. And sometimes doctor's doesn't have the so much time to examine the patient so this mechanism helps the doctor so much as it works as an assistant doctor so it will save the doctor's time and result accuracy is 95%

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