COMPARISON OF AUTAR DVT RISK ASSESSMENT SCALE AND WELL'S CRITERIA FOR DIAGNOSIS OF DVT AMONG CRITICALLY ILL PATIENTS

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Abstract: .

Introduction:

Deep vein thrombosis play the silent killer role in intensive care unit and increase mortality rate in ICU. DVT is caused by immobilization for long time it also occurs when patient's conditions suffer like being complete bedridden or a patient is on mechanical ventilator support which will inhibit the mobility of the patient and due to that immobilization DVT will which will cause severe complications.

Objective of the study :

- To find the incidence of deep vein thrombosis among critically ill patients by using Autar vein thrombosis risk assessment scale and Well's Criteria.

Methodology

The researcher conducted a prospective observational non-experimental quantitative study on 100 patients sample selected through non-probability Convenient sampling technique.Data has collected through 2 standardization tools Autar DVT risk assessment scale and Well's criteria for diagnosis of DVT in critical care unit in selected hospital of Navi Mumbai. this institute was selected for the study on the basis of availability of sample research accessibility and familiarity with institute.

Pilot study conducted followed by actual data collection was done and analyzed by using descriptive analysis and statistical

Results:

In patients with suspected DVT Roc courve and reliability for well' criteria found 0.98 which is significantly reliable. after the Kappa Statistics analysis results shows: 0.69 which is Good Agreement of a tool which show Sensitivity of 82.83% (95% CI:73.94-89.67%) specificity of 100% (95% CI:2.5-100%) Positive Predictive Value of 100% (95% CI:95.60-100%) Negative Predictive Value=5.55%(0.14-27.29%) Diagnostic Accuracy:85.23% found.

Conclusion

DVT is a condition that developed at the silently but quickly in critically ill patients who need early attention and prevention to reduce the critical care mortality hence it is very essential to use a tool to detect diagnosis of DVT which will reduce the mortality in ICU. Well's criteria do not require any investigation this effective tool to be used in any critical care area to diagnosis of DVT Autar deep vein risk assessment scale is also effective to diagnose at the earliest this comparative study shows well's criteria to have 100% sensitivity in dictating DVD as compared to Autar DVT risk assessment scale.

Index Terms - . intensive care unit, Well's criteria, Autar deep risk assessment scale, deep vein thrombosis ,mortality

1 INTRODUCTION

Deep vein thrombosis is the most dangerous and silent killer in critical care areas it inhibits the recovery of the patient in ICU.The critical patient is often mixed with various dysfunction of the organ system which is shown in physiological changes in severe respiratory, cardiovascular and neurological derangement.

DVT is a vascular disease that occurred by forming it clot in veins due to that, blood supply inhibit the further process which started with symptoms like severe pain not being able to walk swelling in the legs either bilateral or unilateral person who are age more than 60 years and a person who got recent surgery within six years six months people who are not immobilized more than 72 hours has a more chance of developing DVT.

1.2Population and Sample

In this study population is all the patients present at critical care units at multi-specialist hospitals in navi Mumbai.

In this study, the sample means of the entire patient presented at DVT sign and all those patients admitted in the critical care unit during the period of data collection.

Sample size : It is the number of people who are included in study

A sample size of 100 was selected for the study

2 Data and Sources of Data

In this study non-probability, Convenient sampling technique was used to select the sample based on inclusion and exclusion criteria and this process is continued until 100 representative samples were collected.

3 RESEARCH METHODOLOGY

In general, the research approaches are:

• The approach is used for data collection

• The approach is used for data analysis and reasoning

The approach used for this research is the prospective observational quantitative method

The research design used for the current study is a descriptive research design among patients at critical care units of selected hospitals at Navi Mumbai

This is a prospective observational quantitative study comparing Autar deep vein risk assessment scale and well's criteria

In this study the data pertaining to Well's criteria and a Autar deep vein risk assessment scale was collected prospectively by obtaining data from a patient, records and monitor at critical care units .

Descriptive Statistics

Descriptive statistics are typically distinguished from inferential statistics. With descriptive statistics you are simply describing what is or what the data shows. With inferential statistics, you are trying to reach conclusions that extend beyond the immediate data alone. For instance, we use inferential statistics to try to infer from the sample data what the population might think. Or, we use inferential statistics to make judgments of the probability that an observed difference between groups is a dependable one or one that might have happened by chance in this study. Thus, we use inferential statistics to make inferences from our data to more general conditions; we use descriptive statistics simply to describe what's going on in our data.

The software used in the analysis were SPSS 24.0 and Graph Pad Prism 7.0 version and $p < 0.05$ is considered as level of significance.

The statistical tests used for the analysis of the result were:

1. Chisquare Test

2. Pearson' Correlation Coefficient

3. Reliability Analysis

4 RESULTS AND DISCUSSION

1. **Findings related to Autar Deep Vein risk assessment scale and Well's criteria score among patients admitted in the critical care unit.**

2. **Comparison of risk of deep vein thrombosis with autar deep vein thrombosis risk assessment scale and Well's criteria among critically ill patients**
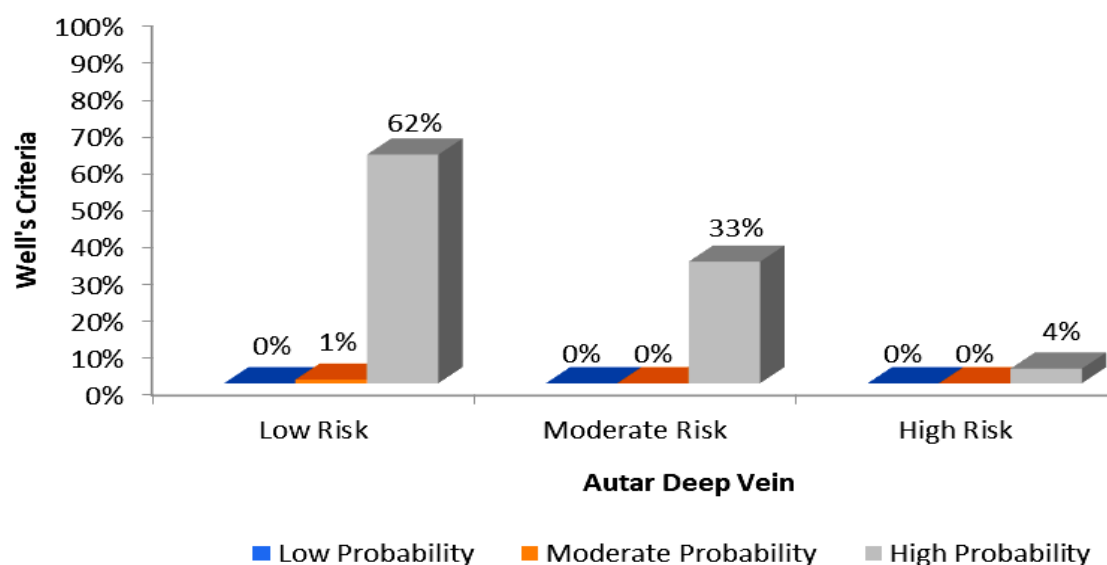
n=100

Autar Scale	Score	Well'sCriteria		
		Low Probability	Moderate Probability	High Probability
Low Risk	≤10	0	1	62
Moderate Risk	11-14	0	0	33
High Risk	≥15	0	0	4
Total1				99

x^2-value 0.59, p-value=0.74,NS, df=2

The first reading of the patient recorded using the tool Autar Deep Vein ris kassessment scale and Well's criteria score was done to the critical care unit, followed by three consecutive days of assessment and recording. Those patients who were found to be positive or had Autar Deep Vein risk assessment scale and Well's criteria score of more than tracked for the progress,. The patients who diagnosed with previous history of blood diathesis were excluded from the study.

5 Discussion

The main objective of this study is to detect early diagnosis of DVT at the earliest using the two standardized tools official permission was granted by the authorities. there are many studies which is conducted using these tools but there are limited research has done by comparing both the standardized tool wells criteria was introduced in 1998 where the critical care units were facing problems with deep vein thrombosis mortality of its complication.

6 References

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