Analisis D-Dimer, Fibrinogen, dan Karakteristik Luaran Pasien Trombosis Vena Dalam di Rumah Sakit Cipto Mangunkusumo Sebelum dan Selama Pandemi COVID-19 = Analysis of D-Dimer, Fibrinogen, and Outcome Characteristics of Deep Vein Thrombosis Patients at Cipto Mangunkusumo Hospital Before and During the COVID-19 Pandemic

Harsya Dwindaru Gunardi, author

Abstrak

Setidaknya 1 dari 200 pasien COVID-19 akan mengalami DVT, dan sekitar 20% kasus VTE berhubungan dengan COVID-19. Risikonya meningkat empat kali lipat pada pasien COVID-19. Munculnya berbagai faktor patofisiologis yang berkontribusi terhadap terjadinya DVT pada pasien COVID-19 menimbulkan pertanyaan menarik mengenai perbedaan dalam karakteristik luaran pasien DVT sebelum dan selama pandemi, serta variasi dalam perawatan dan hasil pasien. Desain penelitian yang digunakan adalah studi kohort retrospektif untuk melihat perbandingan karakteristik dan manajemen pasien DVT (Deep Vein Thrombosis) sebelum dan selama pandemi COVID-19. Didapatkan data 489 subyek yang diikutsertakan dalam penelitian ini dengan nilai rata-rata usianya adalah 50.72 ± 18.00. Berdasarkan waktu terkenanya DVT, dari 489 subyek tersebut, sebagian besar sampel yaitu sebanyak 344 orang (72.9%) merupakan pasien yang mengalami DVT selama pandemi COVID. Berdasarkan status mortalitas, terdapat 336 orang (71.8%) yang masih hidup setelah mengalami DVT. Berdasarkan keberadaan perdarahan hebat, sebagian besar subyek yaitu 402 orang (82.2%) tidak mengalami perdarahan hebat. Berdasarkan status rekurensi, terdapat 321 orang (65.7%) yang mengalami rekurensi yaitu kembali dirawat dengan diagnosa yang sama dalam 1 tahun pertama setelah pertama kali dirawat. Sebanyak 479 orang (97.9%) tidak mengalami emboli paru. Didapatkan nilai rata-rata durasi rawat inap selama 13.41 ± 9.89 hari. Berdasarkan hasil pemeriksaan D-Dimer, didapatkan nilai rata-rata 3008.21 ± 1494.59 ng/mL. Sedangkan hasil pemeriksaan fibrinogen, didapatkan nilai rata-rata 301.06 ± 58.63 mg/dL. Dalam melihat komparasi data DVT sebelum dan selama pandemic COVID-19, dari 4 variabel yang dilihat, hanya D-Dimer yang memiliki perbedaan yang signifikan berupa peningkatan nilai rata-rata apabila dibandingkan antara sebelum pandemic COVID (2052.34 ± 568.30 ng/mL) dan selama COVID (3363.89 ± 1573.79 ng/mL) dengan nilai p < 0.001. Hasil berbeda terjadi pada fibrinogen yang tidak memiliki perbedaan yang signifikan antara sebelum pandemic COVID (295.66 ± 57.28 mg/dL) dibandingkan dengan selama COVID (303.06 ± 59.08 mg/dL) dengan nilai p 0.223. Ditemukan bahwa pada pasien COVID-19 didapati nilai D-Dimer yang lebih tinggi (nilai p <0.001) serta fibrinogen yang lebih tinggi secara signifikan (p=0.032).

.....At least 1 in 200 COVID-19 patients will experience DVT, and approximately 20% of VTE cases are related to COVID-19. The risk increases fourfold in COVID-19 patients. The emergence of various pathophysiological factors that contribute to the occurrence of DVT in COVID-19 patients raises interesting questions regarding differences in the outcome characteristics of DVT patients before and during the pandemic, as well as variations in patient care and outcomes. The research design used was a retrospective cohort study to compare the characteristics and management of DVT (Deep Vein Thrombosis) patients before and during the COVID-19 pandemic. Data were obtained for 489 subjects who were included in this

study with an average age value of 50.72 ± 18.00. Based on the time of DVT, of the 489 subjects, the majority of the sample, namely 344 people (72.9%) were patients who experienced DVT during the COVID pandemic. Based on mortality status, there were 336 people (71.8%) who were still alive after experiencing DVT. Based on the presence of severe bleeding, the majority of subjects, namely 402 people (82.2%) did not experience severe bleeding. Based on recurrence status, there were 321 people (65.7%) who experienced recurrence, namely being treated again with the same diagnosis within the first year after first being treated. A total of 479 people (97.9%) did not experience pulmonary embolism. The average duration of hospitalization was 13.41 ± 9.89 days. Based on the results of the D-Dimer examination, an average value of 3008.21 ± 1494.59 ng/mL was obtained. Meanwhile, the results of the fibrinogen examination showed an average value of 301.06 ± 58.63 mg/dL. In looking at the comparison of DVT data before and during the COVID-19 pandemic, of the 4 variables looked at, only D-Dimer had a significant difference in the form of an increase in the average value when compared between before the COVID pandemic (2052.34 ± 568.30 ng/mL) and during COVID (3363.89 ± 1573.79 ng/mL) with p value < 0.001. Different results occurred in fibrinogen which did not have a significant difference between before the COVID pandemic (295.66 ± 57.28 mg/dL) compared to during COVID (303.06 ± 59.08 mg/dL) with a p value of 0.223. It was found that COVID-19 patients had higher D-Dimer values (p value <0.001) and significantly higher fibrinogen (p=0.032).