# Perbandingan tingkat kualitas sputum dan kepositifan bakteriologis sputum sebelum dan setelah individually-guided active cycle breathing technique dan video-guided active cycle breathing technique pada tuberkulosis paru = Comparison of sputum quality and sputum bacteriological positivity level before and after individually guided active cycle breathing technique and video guided active cycle breathing technique in pulmonary tuberculosis

Ginanjar Arum Desianti, author



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Abstrak

Latar belakang: Penemuan kasus tuberkulosis TB paru berperan penting dalam mengurangi angka komplikasi dan mortalitas. Diagnosis TB paru bakteriologis ditegakkan dengan pemeriksaan sputum sehingga spesimen yang diperiksa harus representatif dalam menggambarkan produk sekresi saluran napas bawah. Hal tersebut dapat dilihat dari kualitas sputum yang baik sehingga diharapkan memiliki tingkat kepositifan yang lebih tinggi dalam konfirmasi penyakit secara bakteriologis. Saat ini masih dirasakan kesulitan pada beberapa kasus dalam pengumpulan sampel sputum yang representatif sehingga dibutuhkan metode baru ekpektorasi sputum pada pasien TB paru, seperti metode active cycle breathing technique ACBT . Tujuan utama penelitian ini yaitu untuk mengetahui perbandingan efektifitas ACBT 2 jenis metode ACBT terhadap hasil sputum pasien TB paru, baik dalam hal kualitas sputum maupun tingkat kepositifan bakteriologis sputum.Metode: Desain penelitian ini yaitu uji klinis randomisasi pre-post study dengan membandingkan kualitas sputum dan kepositifan bakteriologis sputum sebelum dan setelah individually-guided ACBT dan video-guided ACBT. Setelah itu dilakukan perbandingan efektifitas kedua teknik tersebut. Subjek yang memenuhi kriteria penelitian akan dirandomisasi untuk dibagi dalam 2 kelompok perlakuan. Setiap subjek akan diminta untuk ekspektorasi sputum sewaktu sebanyak dua kali yaitu sebelum dan setelah ACBT dan selanjutnya akan dilakukan identifikasi kualitas sputum, pemeriksaan basil tahan asam BTA dan biakan mycobacterium tuberculosis MTB .Hasil: Terdapat peningkatan yang bermakna setelah intervensi individually-guided ACBT dalam hal tingkat kualitas sputum p=0,000 , kepositifan BTA p=0,000 dan biakan MTB sputum p=0,000 . Namun 3 hasil tersebut tidak didapatkan setelah intervensi video-guided ACBT p=0,157; p=0,072; p=0,061 . Hasil tersebut diperkuat dengan analisis perbandingan antara kedua kelompok tersebut yang menyatakan bahwa intervensi individually-guided ACBT menyebabkan peningkatan kualitas sputum p=0,000 , kepositifan BTA p=0,000 dan biakan MTB p=0,000 yang bermakna dibandingkan dengan intervensi video-guided ACBT.Kesimpulan: Individually-guided ACBT merupakan teknik yang lebih efektif dibandingkan dengan video-guided ACBT dalam peningkatan kualitas sputum dan kepositifan bakteriologis sputum pasien TB paru.Kata kunci: Active cycle breathing technique, sputum, kualitas, bakteriologi, tuberkulosis.

.....Background Identification of new tuberculosis TB cases plays an important role in decreasing complication and mortality rate. Sputum specimen is an integral part for bacteriological diagnosis of pulmonary tuberculosis so it should be represent lower respiratory tract secretion. It could be described by good sputum quality so hopefully it will have a higher positivity rate in bacteriological confirmation of the disease. Nowdays, it still felt quite hard in few cases for getting representative sputum specimen for

diagnostic procedure so it is needed a new method for increasing sputum expectoration in tuberculosis patient, such as active cycle breathing technique ACBT method. So the primary aim of this research is to evaluate the effectivity comparison of ACBT 2 type ACBT methods in sputum result of pulmonary TB patient, both regarding sputum quality and also bacteriological positivity level.Method It is a clinical trial pre post study to compare quality of expectorated sputum and bacteriological positivity level before and after individually guided ACBT and video guided ACBT. After that, both intervention will be compared by their effectivity. Subjects who fulfill the study criteria will randomized into two study group. Each subject were asked to expectorate spot sputum twice, before and after ACBT and it will be identified for sputum quality, direct smear of acid fast bacili AFB and mycobacterium tuberculosis MTB culture. Results There is a significantly increased after intervention individually guided ACBT in terms of the quality sputum p 0.000 , positivity of AFB smear p 0.000 and MTB culture p 0.000 . However the 3 results are not obtained after the video guided ACBT intervention p 0.157 p 0.072 p 0.061 . These results are reinforced by a comparative analysis between the two treatment groups that claimed individually guided ACBT intervention lead to significantly improved in quality of sputum p 0.000 , positivity of AFB smear p 0.000 and MTB culture p 0.000 compared to video guided ACBT. Conclusion Individually guided ACBT is a technique that is more effective than video guided ACBT in terms of sputum quality and bacteriological positivity level in pulmonary TB patients. Keywords Active cycle breathing technique, sputum, quality, bacteriology, tuberculosis.