

Uji Diagnostik RT-PCR Swab Anal untuk diagnosis COVID-19 = The Value of Anal Swab RT-PCR for COVID-19 diagnosis in adult Indonesian patients

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Abstrak

Latar Belakang

Kasus pertama di AS memperlihatkan adanya gejala saluran cerna juga dialami oleh penderita COVID-19. Penelitian di Cina didapatkan pasien dengan keluhan pernapasan yang disertai keluhan saluran cerna adalah 47% dan ada 3% pasien yang hanya dengan keluhan saluran cerna saja tanpa gejala pernapasan.

Pada penelitian RT-PCR ternyata ditemukan hasil positif tidak hanya pada saluran napas namun juga pada spesimen lain termasuk feses (29-53,42%). Pada biopsi endoskopi beberapa kasus juga ditemukan adanya virus SARS CoV-2 pada lambung, duodenum, ileum, dan juga rektum. Sedangkan penelitian menggunakan spesimen anal swab didapatkan angka 52,6% hasil positif.

Terdapat laporan kasus dimana hasil pemeriksaan PCR swab nasofaring negatif, namun ternyata swab anal menunjukkan hasil positif dan persisten selama 42 hari. Metode RT-PCR dengan spesimen swab anal diharapkan dapat menjadi alternatif selain spesimen dari naso-orofaring.

Tujuan

Pada penelitian ini akan menguji performa tes PCR swab anal jika dibandingkan dengan tes PCR swab naso-orofaring sebagai alat diagnosis Covid-19.

Metode

Populasi target adalah adalah pasien suspek atau probable Covid-19, usia >18 tahun. Subyek dengan diare profuse, Hematokezia atau melena masif, luka di anal, tidak disertakan dalam penelitian. Pemeriksaan RT-PCR swab anal dilakukan dengan MiRXES Fortitude Kit 2.1

Hasil

Penelitian ini berhasil mendapatkan data dari 136 subyek. Selama penelitian tidak didapatkan komplikasi dan keluhan dari pasien selama pengambilan sampel anal. Sensitivitas RT-PCR swab anal adalah 36,67% (IK 95%: 28,04 sampai 45,28%) dan spesifisitas 93,75% (IK 95%: 81,88 sampai 100%). Nilai duga positif didapatkan 97,78% (IK 95%: 93,47 sampai 100%) dan nilai duga negatif sebesar 16,48% (IK 95%: 8,86 sampai 24,10%).

Simpulan

RT-PCR Swab anal dapat menjadi uji konfirmasi yang baik pada kasus COVID 19 dengan spesifisitas 93,8% pada kasus suspek dan probable COVID 19. Swab anal juga aman untuk dikerjakan.

.....Background

The first US case of Covid 19 experiencing gastrointestinal disorders. Study in China found that patients with respiratory and gastrointestinal symptoms was 47% and there were 3% of patients with gastrointestinal symptoms only without respiratory symptoms.

It was found that positive results of RT-PCR were not only in the respiratory tract but also in other specimens including feces (29-53.42%). Endoscopic biopsy of several cases also found the SARS CoV-2 virus in the stomach, duodenum, ileum, and rectum. While the study using anal swab obtained 52.6%

positive results. There was a case report that PCR examination of the nasopharyngeal swab was negative, but the anal swab was positive and persistent for 42 days. This finding certainly needs further investigation, because there may be cases of Covid-19 that were not detected by the naso-oropharyngeal swab RT-PCR swab but can be detected by anal swabs. The RT-PCR method with anal swab is expected to be an alternative to the naso-oropharyngeal swab.

Objective

This study test the performance of the anal PCR swab test when compared to the naso-oropharyngeal swab PCR test as a diagnostic tool for Covid-19.

Method

Subjects of this study are patients with suspected or probable Covid-19, aged > 18 years. Subjects with extensive diarrhea, massive hematoschezia or melena, and anal wounds, were not included in the study. RT-PCR anal swab examination was performed with MiRXES Fortitude Kit 2.1

Result

136 eligible subjects were analyzed. There were no complication and complaints from patients during sampling. The sensitivity of RT-PCR anal swab was 36.67% (CI: 28.04 to 45.28%) and specificity 93.75% (CI: 81.88 to 100%). The positive predictive value was 97.78% (CI: 93.47 to 100%) and the negative predictive value was 16.48% (8.86 to 24.10%).

Conclusion

RT-PCR Anal swabs can be a good confirmation tool of COVID 19 cases with a specificity of 93.8%, in suspected and probable COVID 19 cases. Anal swabs are also a safe procedure.