

RT-PCR TESTING FOR COVID - RELATED COMPLICATIONS

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ABSTRACT

During the COVID-19 pandemic, numerous swab samples have been taken for SARS-CoV-2 reverse transcriptase–polymerase chain reaction (RT-PCR) testing. Nasopharyngeal sampling is considered safe, despite adjacent vital structures (eg, orbit, skull base, rich vasculature). However, case reports and clinical observations indicate the possibility of complications.

Here I am reporting 4 cases where the test related to Trigeminal neuralgia, although it is not sure whether it was directly related to the testing process.

Key words: Pitfalls in methods of RTPCR (by nasopharyngeal swab) for Covid.

Methodology

There were 4 cases with suspected symptoms of Covid who were advised RTPCR by nasopharyngeal swab tests.

Although none turned positive, but following the testing, as routinely done developed an unusual complication.

Case Reports

The patients underwent the testing. During testing, they felt a bit discomfort. One felt pain too during the nasal swab taking.

2 days later all the four patients presented with lancinating pain in the region of Trigeminal nerve. However all were not similar. Three had pain distribution in all three distributions, namely, Ophthalmic, Maxillary and mandibular areas and one had only paraesthesia along with pain in the mandibular distribution.

They were started on Carbamazepine starting from 200 mg twice daily. Two patients responded to the dose in three weeks.

Two other required another 200 mg (total 600 mg in 3 divided doses).

After three weeks three patients stopped having the pain and were clinically symptomless, but one patient, who had distribution only in the maxillary area along with paraesthesia, stopped having pain and paraesthesias but started complaining of numbness in the same mandibular division.

Discussion

RTPCR testing has several pitfalls. Collection preservation, storage and transfer to the lab is essential as fault in any of these can lead to patient related complication or wrong results.

Also in any neuropathy, there are positive symptoms as pain, paraesthesias, hyperalgesia, allodynia etc which signifies that the nerves are yet in the process of either demyelination or axonal damage partially, and holds true for any diseases causing neuropathy like Diabetes, Vasculitis, Paraneoplastic or other causes. At this juncture if the correctable cause can be treated along with symptomatic relief by drugs as Carbamazepine, Amitriptyline, Gabapentin or Pregabalin etc, the process can be halted. But once negative symptoms develop as numbness, hypoalgesias etc it signifies that the nerves are damaged (myelin/ axon or both) and usage of drugs will not help further.

This can be verified electrophysiologically by tests as Nerve conduction or electromyographic studies (NCV/EMG).

Hence as three of the patients stopped having positive symptoms, they were tapered out of Carbamazepine over next one month but the one who developed negative symptoms, (numbness) was also tapered and reassured.

Summary

From the above observations, in summary it can be only said that although RTPCR remains the Gold standard test for Covid, it has its pitfalls too. The collection and other processing should be done by experienced hands as otherwise such complications or faulty reports are bound to happen.

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References

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