



KNOWLEDGE AND ATTITUDE TOWARDS MANDATORY RAPID ANTIGEN DETECTION TEST AMONG PATIENTS PLANNED FOR ELECTROCONVULSIVE THERAPY- A HOSPITAL-BASED STUDY FROM KASHMIR, INDIA

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ABSTRACT **Background** The present study was aimed to know the knowledge and attitude of patients towards mandatory pre-ECT Rapid Antigen Detection Test during COVID-19 Pandemic. **Method** A 18 item questionnaire was formulated to assess the knowledge and attitude of patients towards rapid antigen testing in patients who were planned for electroconvulsive therapy. A total of 100 patients were taken for study. **Results** Our study showed that majority of our patients had knowledge about RAT (61%), its advantages (66%) and why the test was done and were of the opinion that it will help us to stop the spread of infection. However, 82% of the patients gave the positive responses that they fear the test results and around 5% of them were of the opinion that they would prefer cancellation of ECT than to undergo testing. Majority (93%) of our cases gave the positive response on that they were anxious about redoing the test. **Conclusion** From our study we concluded that though most of them had good knowledge about the test but most of them had negative attitude towards the test.

KEYWORDS : Knowledge, Attitude, Rapid Antigen Detection test, COVID-19, ECT Patients

INTRODUCTION

Coronavirus pandemic caught mankind off the guard and affected all the systems in one or the other way. Health system too was badly affected. All surgical and non-surgical interventions were significantly affected [Ahmed Al-Jabir et al 2020]. In psychiatry patients, Electroconvulsive therapy a non-surgical intervention proved to be a promising agent when psycho and pharmacotherapy had failed to show good response [Thomas C. Baghai et al 2020]. During times of COVID-19 crises when the routine procedures were suspended as an effort to control the spread of infection, it was a challenge for patients with mental health-related issues and their caregivers [Christian Stob et al 2020]. Similarly, ECT was suspended in our hospital to attenuate the spread of COVID-19. At one hand many psychological problems had emerged due to COVID-19 pandemic and on other hand suspension of ECT had aggravated the already existing mental health related-issues [Sandeep Grover et al 2020]. Besides this, the RTPCR test for diagnosing Coronavirus infection would give results after 2-3 days and ECT given at least twice a week was difficult to manage [Curetis Group Company Ares Genetics and BGI Group Collaborate 2020]. In September 2020 a week after RAT was introduced in Kashmir valley as an easy and quick test for diagnosing COVID 19, it became possible to run the ECT as usual for the quality outcome of psychiatric ailments. The RAT takes 15-25 minutes to give results and is suitable for bulk testing [Guglielmi G 2020]. This test is more easy, quick, and efficient in reducing the delay in test results. The RAT has been used as an emergency tool to make routine procedures possible.

The present study was aimed to know the knowledge and attitude of patients undergoing ECT towards the mandatory Pre-ECT RAT.

METHODS

Study Settings

The study was conducted from September 2020 to February 2021 in Institute of Mental health and neurosciences Kashmir, an associated hospital of Government College Srinagar.

Study Design

A cross-sectional study was carried out.

Study Population

A total of 100 patients who were taken-up for ECT participated in the study from September 2020 to February 2021. It was a time bound study.

Inclusion Criteria

- Participants of age more than 18 years
- Participants who gave consent for the study

Exclusion Criteria

- Age less than 18 years
- Violent uncooperative patients
- Those who were having impaired intellectual ability
- Those who had sensory deficiencies, motor speech disorders, or organic brain disorders

The purpose of the study was explained to and informed consent was taken from all the participants. The participants were questioned before and after Rapid Antigen Test on the day of the planned ECT session of the patient to complete the interview questionnaire. The questionnaire was administered by a psychiatrist. The questionnaire was formed by two senior psychiatrists after analyzing questionnaires related to the RAT. The questionnaire was explained to participants in Local Language. The study was approved by the institutional ethical committee.

The Structured Self-designed questionnaire enquiring about socio-demographic variables like age, sex, residential background, education, occupation, type of family, social support, and socioeconomic status. The questionnaire also enquired about the knowledge and attitude of patients towards RAT. A total of 18 questions about Rapid-Antigen Test were asked and most appropriate responses were collected from each participant against each question.

RESULTS

A total of 100 patients who were planned for electroconvulsive therapy were taken for the study. The mean age of the patients were 38 ± 10.23 YRS. Out of 100 participants, 67 were males and 33 were females. Majority of the patients were married (72%), illiterates with no formal education (63), working (67%) either in Government, or private sector or running their own business. Most of the patients were from Rural background (71%) with good social support (81%) and belonging to middle socioeconomic class (77%). Details are mentioned in Table 1 below.

Table 1

S. NO	SCIODEMOGRAPHIC VARIABLES	N=100	Ratio
1.	Age Mean Age	38 ± 10.23 YRS	
2.	Sex Male;Female	67;33	2;1
3.	Marital status Married;Unmarried;Others	72;20;08	9;2.5;1
4.	Education Illiterate;literate	63;37	1.7;1
5.	Occupation Working;Not working	67;33	2;1
6.	Background Rural;Urban	71;29	2.44;1
7.	Social support Good;Poor	81;19	4.2;1
8.	Socioeconomic status Upper Middle;Lower Middle; Lower	4;77;19	1;19.25;6.25

The source of information about COVID and its testing was assessed among patients using a semi structured questionnaire. The answers were recorded as positive response ,negative response and not sure against each question. Most of the patients were found to have a good

knowledge about rapid antigen testing. In our study it was found that almost 61% of the patients gave positive response and knew about RAT and about 13% of the patients gave the negative response whereas 7% gave not sure responses. About 55% and 66% of the patients knew why the test was done and what was the advantage of RAT. Only 7% of the patients had knowledge that test was FDA approved and around 92% were not sure about that. 63% of the patients gave not sure responses when asked about the accuracy of the test. 64% of the patients gave positive responses that RAT will help in stopping spread of COVID-19 infection and 32% were not sure about it. In our study 68% of the patients were not sure about how the test was done only 4% know the procedure of test. 79% of the patients gave negative response for if they had undergone testing before and only 21 % had given positive response. When asked about if the test was painful 64 % gave response that yes test is painful, 7% were of the opinion that test is not painful and 29% gave not sure response. 67% were not sure about test results. Majority 93% of the patients gave the positive response for if the test was mandatory before doing ECT with 7% giving not sure response. 71% of the participants were not sure about the frequency of test. Majority (82%) of the patients in our study gave the positive response of fearing the test results. Around 5% of the patients gave the positive response on that they will prefer the cancellation of ECT than to undergo RAT and 73 % had given the not sure response. It was found that 88% of the patients gave positive responses on ECT done by compulsion and 67% gave negative responses for if the test was done by choice. Most of the patients in our study (93%) gave positive response for if they were anxious about redoing the test. The details are given in Table 2 below.

Table 2

S. NO	Knowledge	Positive response (N)	Negative response (N)	Not sure (N)
1.	Do you know about RAT	61	13	26
2.	Do you know why is the test done	55	12	33
3.	Do you know its advantage	66	04	30
4.	Is it FDA approved	07	01	92
5.	The test is accurate	12	25	63
6.	It will help us to stop the spread of Coronavirus	64	04	32
7.	Do you know how the test is done	04	24	68
8.	You went for a test before	21	79	0
9.	Test is painful	64	7	29
10.	Possibility of wrong results	13	20	67
11.	Test is mandatory	93	0	7
12.	Is test done more than once per week	19	10	71
13.	Do you fear results	82	04	14
14.	You prefer cancellation of ECT	05	22	73
15.	Was the test done by compulsion	88	12	0
16.	You went for the test by choice	12	67	21
17.	Does it change your experience after the test	31	14	55
18.	Anxious about redoing the test	93	02	05

DISCUSSION

Electroconvulsive therapy is one of the most important intervention given in psychiatric illnesses. Most of the patients in our study were stabilized on ECT and were doing well on same. In 2020 COVID-19 has hit every corner of the world and had affected the psychological wellbeing of everyone globally [Sharma R et al 2020]. The impact on the health-care system was enormous [Ahmed Al-Jabir et al 2020]. Both the elective and emergency procedures were affected thereby compromising the patient wellbeing [Ahmet Surek et al 2020]. ECT is done as both elective and emergency procedure in psychiatric illnesses. There is high risk of transmission of SARS-COV2 during ECT due to possibility of sharing of oxygen masks, aerosol generation, etc. To contain the spread of infection, ECT was suspended for sometime. This suspension of ECT took a toll upon the already existing psychopathology of our patients. ECT was resumed once RTPCR was started in our setting. The results of RTPCR would usually take 2-3

days [Curetis Group Company Ares Genetics and BGI Group Collaborate 2020] which again was a barrier to ECT procedure. It was not possible to repeat test everytime due to delay in results especially in those who were receiving ECT on OPD basis and at least twice a week. Then in September RAT was introduced in JK UT which was a boon to our patients. As RAT was a new test and effort was made to study the knowledge and attitude of the patients on ECT about the test. In our study, it was found that majority of the patients had knowledge about Rapid-antigen testing, its purpose and advantage. But most of them were not sure whether the test was FDA approved, how the test was done and how accurate the test was which can be explained by the fact that majority of the cases in our study were illiterates. 64% of the patients were of the opinion that RAT will help us to stop the spread of COVID-19 infection. As RAT testing is done by taking nasopharyngeal swab it is found to be very uncomfortable and painful which made the patients anxious about redoing the test thereby adding to the psychological distress. Most of the patients also feared of results which again was a added psychological burden. As RAT was made mandatory test before going for ECT majority of the patients in our study were of the opinion that they went for test by compulsion and not by choice. Few patients reported that they would prefer cancellation of ECT rather than going for test as it added to their distress, thereby impeding the recovery.

CONCLUSION

From our study we concluded that most of the patients had information about the RAT but were of negative attitude towards the test. It is evident from the study that both the COVID-19 pandemic and its testing had negative psychological consequences and can have affected the recovery of patients who were on ECT. The frequent COVID-19 testing in patients had increased anxiety in them.

Limitation

The sample size was small and no such study has been published yet so results could not be correlated or compared.

Abbreviations

- ECT- electroconvulsive therapy
- RAT- Rapid Antigen Testing
- RTPCR- Reverse Transcriptase Polymerase Chain Reaction
- JK- Jammu and Kashmir
- UT- Union Territory
- OPD- Out Patient Department

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