Original Article

Should Vitreo-retinal Diseases be Treated by Retina Specialists Only?

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Purpose: To evaluate the views of ophthalmologists about referral and treatment of retinal disorders by vitreo-retinal (VR) surgeons

Study Design: Cross Sectional Study.

Place and duration of study: National Ophthalmic Conferences in Lahore, Karachi and Nathiya Gali (2014-2016) and Ophthalmological Society of Pakistan, Lahore Branch Monthly clinical Meetings (2014-2016).

Material and Methods: A questionnaire based survey, involving 610 ophthalmologists was conducted through random sampling. The questionnaire was structured to evaluate the views about prescribing and treating with anti vascular endothelial growth factors (anti-VEGFs) and retinal lasers among random population of ophthalmologists. Survey was conducted during three national congresses and ophthalmological society monthly meetings and in different ophthalmology departments of the city.

Results: Among 610 ophthalmologists from different parts of Pakistan enrolled for the survey, 200 were female and 410 male. Responses from all participants showed that 479 (78.5%) ophthalmologist were in favor that patients with vitreo-retinal disease should be referred to VR surgeons for treatment. Moreover, 472 (77.3%) ophthalmologists among 610 were in favor of intravitreal Anti-VEGF advise by vitreo-retinal surgeons. And 469(76.8%) ophthalmologist agreed that intravitreal anti-VEGF should be injected by vitreo-retinal surgeon. Only 279(45.73%) ophthalmologists among 610 thought that focal or PRP laser can be performed safely by general ophthalmologists.

Conclusion: Ophthalmologists believe that retinal disorders should be referred to and treated by vitreo-retinal surgeons.

Key words: Survey, Anti vascular endothelial growth factor, Intravitreal injections, Laser

Vitreo-retinal disorders have an important role in decreasing vision worldwide[1] as well as in Pakistan[2]. Importance of early and correct diagnosis of vitreo-retinal disorders cannot be underestimated, for its effective management and prevention of blindness. Early detection of vitreo-retinal disorders is often difficult due to unavailability of vitreo-retinal surgeons or non referral by general ophthalmologists. Diabetes[3], hyprtension[4], ischemic heart diseases[5], pregnancy[6], radiations[7], premature births[8] have an important impact on retina leading to markedly decreased vision. Nowadays anti-VEGF[9] and argon laser[10] have an important role in treating retinopathies described by all above predisposing conditions. These modalities of treatment are highly effective when prescribed to a well diagnosed and deserving patient at the right time. Assessment of pathology is the first step in the planning of disease management. Non availability of vitreo-retinal surgeons and lack of referral by general

ophthalmologists are among the major reasons for late, wrong diagnosis and improper management of vitreo-retinal disorders.

Intra vitreal anti-VEGF injections are prescribed by vitreo-retinal specialists rather than general ophthalmologists. Due to increasing prevalence of age related retinal disorders in west general ophthalmologists are thinking to manage it in collaboration with vireo-retinal specialists. Such a survey has been published in which different views were discussed regarding advise of intra vitreal anti VEGF. Finally it was concluded that a vitreo-retinal specialist should advise and inject intra-vitreal anti VEGF. In addition a vitreo-retinal specialist can handle any complication related to intra vitreal anti-VEGF more competently. General ophthalmologist can advise and treat after proper training under vitreo-retinal specialist[11]. Another report has been published in USA, in which for diagnostic tests and management of retinal disorders including intra-vitreal anti-VEGF, PRP, grid and focal laser patients were referred to vitreo-retinal specialist[12].

To the best of our knowledge literature estimating the awareness among ophthalmologists about the role of vitreo-retinal surgeons is not available from Pakistan. The present study is designed to evaluate the awareness among ophthalmologists of Pakistan about the role and need of retinal surgeons in dealing with vitreo-retinal disorders.

MATERIAL AND METHODS

A questionnaire based survey, involving 610 ophthalmologists was conducted through random sampling. The questionnaire was structured to evaluate the level of awareness among a random population of ophthalmologists about the role of vitreo-retinal surgeons in prescribing and treating with anti vascular endothelial growth factors (VEGFs) and retinal lasers.

Survey was conducted during three national congresses and ophthalmological society monthly meetings and in different ophthalmology departments of the city. The questionnaire was designed in English and was pilot tested on 25 ophthalmologists to assess any query regarding understanding of questions.

The questionnaire had two sections. First section had seven questions about the awareness of the role of retinal surgeons in managing vitreo-retinal disorders. Section two pertained to the participant's personal data including name and hospital name. Name of participant was kept optional. Each question had three options and the respondent had to tick the response of their choice. This final version of questionnaire was given to actual participants of the survey.

Six hundred and ten ophthalmologists of variable age were enrolled by random sampling. The enrollment was done by distributing questionnaires randomly before the start of scientific sessions and collected back after the end of sessions. The approximate population (ophthalmologists) attending these ophthalmic conferences and meetings was 3000 at 95% confidence level and confidence interval of 1.5; the required sample size was 200. The survey was done by ophthalmologists.

Statistical package SPSS version 15.0 was used for data analysis.

RESULTS

Among 610 ophthalmologists enrolled for the survey, responses from all participants were evaluated. Out of 610 participants 479 (78.5%) were in favor of referring the patient with vitreo-retinal diseases to retina specialists while 131 participants were against it. There were 138 (22.6%) participants in favor of advising intra-vitreal injections by general ophthalmologists out of the total participants. There were 141 (23.11%) participants in favor of injecting intra-vitreal injections by general ophthalmologists out of the total participants. There were 279 (45.73%) participants in favor of doing focal laser and PRP by general ophthalmologist. There were 469 (76.88%) participants in favor of injecting intra-vitreal injections by retinal surgeons. There were 331 (54.26%) participants in favor of doing focal laser and PRP by retinal surgeons. There were 472 (77.37%) participants in favor of advising intra-vitreal injections by vitreo-retinal surgeons. Participant's responses regarding questionnaire are shown in bar chart with respect to each question separately (Figure 1).

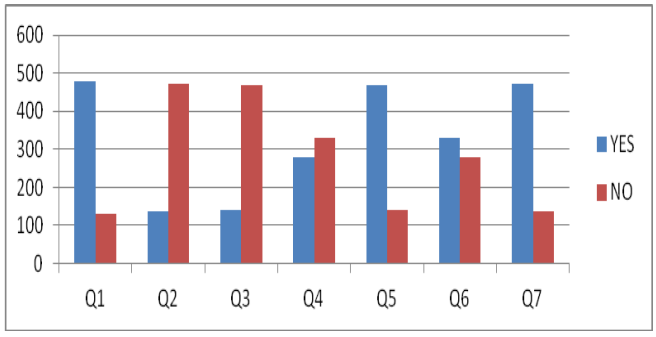

Fig. 1: Participant's responses regarding questionnaire.

Questionnaire

Q.1 Patient of vitreo retinal disease should be referred to vitreo retinal specialist by general ophthalmologist?
Yes No
Q.2 Intra vitreal injections should be advised by general ophthalmologists?
Yes No
Q.3 Intra vitreal injections should be injected by general ophthalmologists?
Yes No
Q.4 Focal lasers and PRP should be performed by general ophthalmologists?
Yes No
Q.5 Intra vitreal injections should be injected by vitreo retinal specialist?
Yes No
Q.6 Focal laser and PRP should be perfomed by vitreo retinal specialist?
Yes No
Q.7 Intra vitreal injections should be advised by vitreo retinal specialist?
Yes No

DISCUSSION

This was a double blinded survey with minimum bias. This study assesses the awareness and knowledge about the need and role of vitreo-retinal surgeon in assessing and managing vitreo-retinal disorders among ophthalmologists participating in ophthalmic conferences, clinical meetings and in different ophthalmology departments. The intent of the survey was to highlight the importance of specialized vitreo-retinal surgeons in securing maximum vision in minor or vision threatening vitreo-retinal disorders.

Most of the ophthalmologists were well aware of need and importance of vitreo-retinal surgeons. Lack of awareness and non referral to vitreo-retinal surgeon often lead to under-diagnosis or late presentation to vitreo-retinal specialist leading to profound deterioration of curable vision. Timely vitreo-retinal consultation can improve visual outcome. A meta-analysis suggested that scleral buckling for macular detachment must preferably be performed within 3 days to optimize visual outcome.[13] another study was done explaining that chronicity of retinal detachment at presentation is an important and poor prognostic indicator for reattachment surgery[14]. Laser treatment by an experienced vitreo-retinal surgeon in time can save vision in many retinal disorders i.e Proliferative diabetic retinopathy[15], retinal vascular occlusions[16], angiomatous proliferation in age related macular degeneration[17]. Anti-VEGF advised by a certified vitreo-retinal surgeon after proper diagnosis can dramatically improve vision in conditions e.g wet age related macular degeneration[18], Diabetic macular edema[19], retinal vein occlusion[20,21] etc.

Overall the awareness among ophthalmologists in Pakistan is good regarding the role of vitreo-retinal specialists and their importance in managing vitreo-retinal disorders. The findings of our study shed light on the level of awareness about the role and need of vitreo-retinal specialists among ophthalmologists in Pakistan. This awareness can lead to early detection, proper management and improvement of visual prognosis in vitreo-retinal disorders. Furthermore there is still need to identify interventions e.g conduction of seminars, workshops, talks etc that reinforce ophthalmologist's attitude above the perceived level of awareness and devise strategies for the betterment of patients. No such data is published earlier to compare.

CONCLUSION

Ophthalmologists believe that retinal disorders should be treated by a vitreo-retinal surgeons. The survey findings stress the need for referral of vitreo-retinal disorders to vitreo-retinal surgeons.

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