

Original Article

Indian Arthroscopy Society Live Webinars: New era of online arthroscopy education during COVID-19 global pandemic

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Received : 14 September 2020

Accepted : 19 October 2020

Published : 10 January 2021

DOI:

10.25259/JASSM_45_2020

Quick Response Code:



ABSTRACT

Objectives: COVID-19 originated from Wuhan, China, in December 2019, and it spread all over the world, leading to devastating pandemic. This has affected large gatherings of people. As there was lockdown in many countries, elective surgeries like arthroscopy were on hold. Many surgeons were involved in online education. This has helped in developing and achieving the arthroscopy academic content online. We, hereby, put forward our experiences of starting the online education initiative of Indian Arthroscopy Society (IAS). Our objective was to study the response to the IAS webinars and digital contents in view of watch hours, viewerships etc.

Materials and Methods: All the data was collected from the analytics of the official YouTube channel. All the digital content including over 100 webinars and 39 video uploads were studied.

Results: Total viewers were 88,560. Date-wise average viewers per day were 456.49. The total watch time of all the viewers was 17,539.5015 h (average watch hours were 90.41 h). This also led to around 1,377,647 impressions. There were 100 live webinars and around 39 different arthroscopy videos uploads.

Conclusion: Good teamwork among all the members has led to a successful online education initiative, which has supported the need for arthroscopy education in this COVID-19 pandemic. Due to these webinars, the IAS has taken a leap towards the digital education activity and it has positively helped the desiring delegates to update their knowledge, learn, and interact with the leaders in the field of Arthroscopic Surgery, from India and abroad.

Keywords: Arthroscopy, Sports medicine, Online education, Webinars, Videos

INTRODUCTION

COVID-19 originated from Wuhan, China, in December 2019, and it spread all over the world, leading to a devastating pandemic. This has affected large gatherings of people. This led to the cancellation of various conferences, courses, and workshops worldwide. This certainly has left many desiring trainees to be devoid of education in the field of arthroscopy. Various reputed international conferences such as AAOS have been canceled.^[1] It is the same with national conferences like the annual conference of the Indian Arthroscopy Society (IAS). As there was lockdown in many countries, elective surgeries like arthroscopy were on hold. Many surgeons were involved in online education. This has helped in developing and achieving the arthroscopy academic content online.

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MATERIALS AND METHODS

We, hereby, put forward our experiences of starting the online education initiative of IAS.

New office bearers of IAS took charge of the office in the month of April 2020.^[2] At that time, COVID-19 was at its peak, and many conferences and courses were getting canceled. The executive committee of IAS decided to start the online education initiative of their own society keeping in mind to impart the knowledge of arthroscopy to the budding and young arthroscopic surgeons through the digital media.

RESULTS

We reviewed the YouTube analytics to gather the data and the results of these webinars.

Till the revised submission of this article, total viewers were 88,560. Date-wise average viewers per day were 456.49. The total watch time of all the viewers was 17,539.5015 h (average watch hours were 90.41 h). This also led to around 1,377,647 impressions. There were 100 live webinars and around 39 different arthroscopy videos uploads.

Statistics of YouTube showed that 94.13% of viewers were male and 5.87% were female viewers. About 40.64% of viewers were in the age group of 35–44 years, followed by 36.8% between 25 and 34 years. In terms of geographical locations of the viewers, our webinars had viewers from 36 countries. Maximum views were from India (63,728 views – 13,029.88 h), followed by Nepal (593 views – 181.4946 h). There were no viewers from Nigeria and Pakistan.

In terms of viewing on devices, maximum views were on mobiles (64749–10725.70 h) followed by desktop (17067–4913.47 h). The top four operating systems used for viewing these webinars were Android phones, iPhone, Microsoft Windows, and Macintosh. There were around 2493 shares, and the maximum was through WhatsApp. Maximum traffic to the channel was through external sources, followed by subscribers. Out of 2340 subscribers, maximum subscribed by clicking on the video (1272) followed by searching the channel (492). Out of 88,560 views, the maximum was from the non-subscribers (46,884– 8857.177 watch hours). As there were live streams as well as uploaded videos, maximum views were for the live stream, followed by premier videos [Table 1].

Table 1: Distribution as per video type.

Video type	Views	Watch time (hours)
Live stream	69867	15,781.7936
Premiere	12058	15,781.7936
Upload	6635	1098.9764
Total	88560	17,539.5015

Out of total 139 webinars and videos, 45 webinars had involvement from the international faculties. As there was huge difference in the number of the national as well as international faculty webinars which reflected in the viewership as well as watch time of these webinars [Table 2].

Out of total of 139 various videos and webinars, webinars related to the knee were maximum (64) which fetched maximum watch hours and views. It was followed up by other topics (38). The shoulder topics were covered in 37 webinars/videos [Table 3]. Out of these 139 videos, video by S. Rajasekaran was viewed by 4857 times. The following is the list of top 10 webinars/videos as per the views [Table 4]. As per the highest watch hours, webinar no.9 which was a case-based discussion on multi-ligament knee injuries by Dinshaw Pardiwala was viewed by 804.8 h by 2055 viewers. The following is the list of top 10 webinars/videos as per the watch hours [Table 5].

DISCUSSION

The presidential theme for IAS for the year 2020–2021 was “Digital Arthroscopy Education- Way To Go.” With reference to this theme, EC of IAS under the leadership of Drs. IPS Oberoi and Swarnendu Samanta appointed EC members. Sandeep Biraris, Pradip Nemade, and Rajeev Raman were chosen as the coordinators for this educational activity. An official YouTube channel was created, and it was decided to host all these educational activities on it.^[3] There were immense efforts taken by the executive committee to make these educational activities successful. All the posters and flyers were designed by the author (SRB) and other coordinators [Figure 1]. These were circulated by all the EC members. The planning was done to make the members aware through various social media platforms such as Facebook, WhatsApp,

Table 2: Faculty-wise distribution of videos.

Faculty	Webinars/ videos	Impressions	Views	Watch time (hours)
International Faculties	45	473,146	24,152	4733.9401
National Faculties	94	904,501	64,408	12805.5614
Total	139	1,377,647	88,560	17539.5015

Table 3: Topic-wise distribution of videos.

Topic	Impressions	Views	Watch time (hours)
Knee	620,716	41,513	8938.6311
Shoulder	433,393	23,166	4335.781
Others	323,538	23,881	4265.0894
Total	1,377,647	88,560	17,539.5015

Table 4: Top 10 webinars/videos as per the views.

Video title	Impressions	Views
Dr Rajasekaran – How to deal with the challenge of lockdown?	11,637	4857
IAS Live Webinar-6- Meniscus Basics	26,278	2343
IAS Live Webinar-11- Young Painful Shoulder	63,490	2105
IAS Live Webinar-9- Multi-Ligament Knee Injuries- Case Based Discussion by Dr Dinshaw Pardiwala	21,116	2055
IAS Live Webinar-4- BTB Masterclass	15,413	1959
IAS Live Webinar-3- ACL Reconstruction and Which Graft Debate	18,629	1912
IAS Live Webinar-17 Patellar Instability – Zoom Meeting	27,372	1774
IAS Live Webinar-1: Rotator Cuff Tears	19,180	1348
IAS Live Webinar-16: PCL – Current Treatment Trends	16,455	1340
IAS Live Webinar -23: Arthro-Latarjet – Dr Pascal Boileau	15,347	1328
Total	1,377,647	88,560

Table 5: Top 10 webinars/videos as per the watch hours

Video title	Impressions	Views	Watch time (hours)
IAS Live Webinar-9- Multi-Ligament Knee Injuries- Case-Based Discussion by Dr Dinshaw Pardiwala	21,116	2055	804.8802
IAS Live Webinar-6- Meniscus Basics	26,278	2343	667.0383
IAS Live Webinar-3- ACL Reconstruction and Which Graft Debate	18,629	1912	582.3236
IAS Live Webinar-4- BTB Masterclass	15,413	1959	492.4717
IAS Live Webinar-17 Patellar Instability- Zoom Meeting	27,372	1774	452.2474
IAS Live Webinar-11 – Young Painful Shoulder	63,490	2105	425.1454
IAS Live Webinar-16: PCL – Current Treatment Trends	16,455	1340	411.9764
Dr Rajasekaran – How to deal with the challenge of lockdown?	11,637	4857	376.2284
IAS Live Webinar-22 Cartilage Injuries – Case-Based Discussion and Poll By Dr Dinshaw	18,183	1271	366.78
IAS Live Webinar-1	287	715	354.894
Total	1,377,647	88,560	17,539.5015

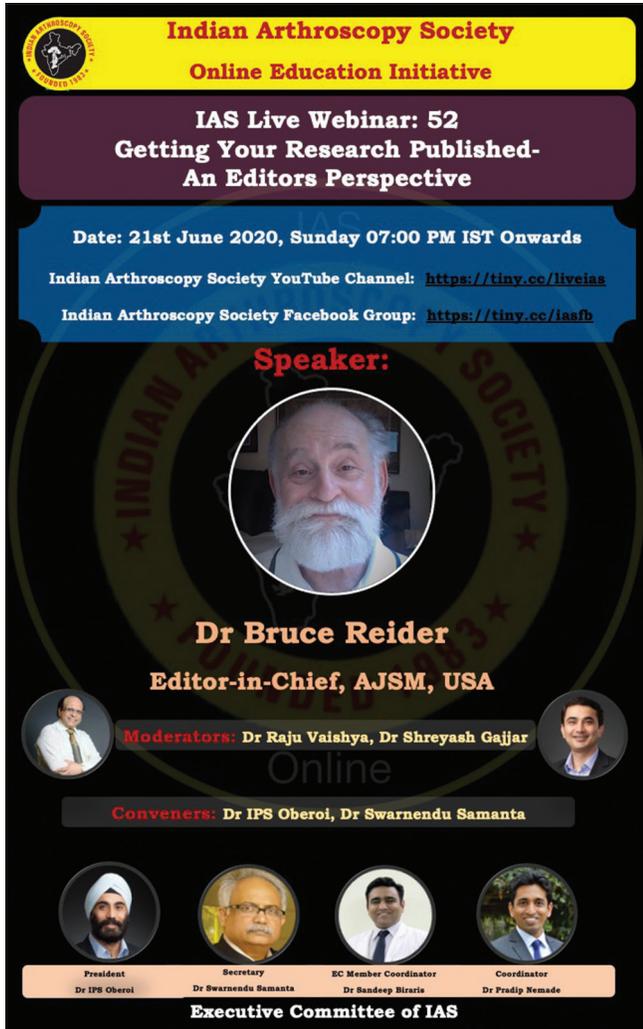
Telegram, and Emailers. There was an encouraging and positive response to these webinars. The YouTube channel was created on March 27, 2020 and the first IAS Live webinar was conducted on April 8, 2020.

These were the unique webinars, where maximum participation of the members was ensured. All the faculties were stalwarts in the field of arthroscopy nationally as well as internationally. Maximum participation was ensured from the various regional arthroscopy societies and local clubs to participate and host the webinars. Another initiative was the webinars based on innovative (“Aatmanirbhar”) video techniques. Another landmark initiative was to share the research work by the members of IAS. This helped in imparting the awareness of research among the members.

Furthermore, there were webinars where SAARC members were invited to speak on arthroscopy-related subjects. Till submission of this manuscript, the total number of live webinars conducted is over 100, which included 17 webinars based on the basics of arthroscopy. In addition to these, there was weekly premier of technique-based videos. On the basic series platforms young, budding arthroscopy

surgeons were given a chance to interact with the faculties directly on the zoom platform and get their doubts clarified. IAS also celebrated Bone and Joint week of Indian Orthopedic Association during the 1st week of August 2020. During this time, various live webinars were conducted in association with various affiliated state chapters and city clubs. This also received an immense response from the delegates. At one point in time, two parallel webinars were streamed live.

Till the submission of this manuscript, ours was the only society that has conducted these many webinars on their own platform by their own members without any additional help from the technical persons or the streaming companies. Our YouTube channel was subscribed by over 2340 subscribers, and we have had over 86,000 viewers since April 2020 and these figures are growing day by day. There are growing demands for these webinars. Many suggestions are invited from the members, and those were implemented. All these webinars were streamed live on YouTube, and questions were invited in the chatbox as well as on WhatsApp. Moreover, those were discussed and answered live by the faculties. One of the good things about this initiative is that all these webinars are archived on the YouTube Channel so that anyone



Indian Arthroscopy Society
Online Education Initiative

IAS Live Webinar: 52
**Getting Your Research Published-
An Editors Perspective**

Date: 21st June 2020, Sunday 07:00 PM IST Onwards

Indian Arthroscopy Society YouTube Channel: <https://tiny.cc/liveias>

Indian Arthroscopy Society Facebook Group: <https://tiny.cc/iasfb>

Speaker:

Dr Bruce Reider
Editor-in-Chief, AJSM, USA

Moderators: Dr Raju Vaishya, Dr Shreyash Gajjar

Conveners: Dr IPS Oberoi, Dr Swarnendu Samanta

Executive Committee of IAS

President: Dr IPS Oberoi
Secretary: Dr Swarnendu Samanta
EC Member Coordinator: Dr Sandeep Biraris
Coordinator: Dr Pradip Nemade

Figure 1: Poster of Indian Arthroscopy Society Live Webinar 52.

can watch them at their convenience. Many internationally acclaimed faculties accepted invitations to take part in these webinars. The 100th live webinar was streamed on October 11, 2020. This was addressed by Drs. Dinesh Patel and S. Gopal Krishnan from the USA. Drs. David Rajan, Anant Joshi, V B Bhasin, and IPS Oberoi. The IAS has decided to continue this digital initiative as per the increased demand by the members. This will be a milestone in digital education.

Tarpada *et al.*, in 2016, have stated that e-learning is an economical, reputable as well as innovative platform, it should be incorporated for the teaching of the residents.^[4] They have also mentioned that it can be potential for the future of orthopedics. Similarly, there have been articles published in the COVID-19 era. Article by Stambough *et al.* has stressed that these digital platforms are the basis for developing the training pathways to make the surgeons better. This technology is here to stay and we should make the use of it

regularly.^[5] Kogan *et al.* have also highlighted the importance of online education, how it has helped to impart the training during the period where the social distancing norms are in place and also many conferences and meetings have either canceled or postponed.^[6]

The IAS has proven through these webinars during the difficult COVID-19 pandemic times that it is possible to utilize the valuable time and continue educational activities and help train the surgeons virtually. It is perhaps one of the unique organization of its own kind to provide more than 100 educationally rich webinars in only 6 months' time.

CONCLUSION

Good teamwork among all the members has led to a successful online education initiative, which has supported the need for arthroscopy education in this COVID-19 pandemic. Due to these webinars, the IAS has taken a leap towards the digital education activity and it has positively helped the desiring delegates to update their knowledge, learn, and interact with the leaders in the field of Arthroscopic Surgery, from India and abroad.

Acknowledgments

I am grateful for the help and support of Drs. IPS Oberoi, Swarnendu Samanta, Pradip Nemade, and Rajeev Raman for coordinating these education activities. Special thanks are also due to the EC members of IAS for supporting and promoting the activities on all the social media platforms and helping in arranging the academic reach content. Last but not least, we are obliged to all the participating faculties and the moderators for their valuable time and passion to teach and all the viewers for their active participation in the academic discussions.

Declaration of patient consent

Patient's consent not required as there are no patients in this study.

Financial support and sponsorship

Nil.

Conflicts of interest

Dr. Sandeep R Biraris is on the Editorial Board of the Journal.

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How to cite this article: Biraris SR. Indian Arthroscopy Society Live Webinars: New era of online arthroscopy education during COVID-19 global pandemic. *J Arthrosc Surg Sports Med* 2021;2(1):8-12.