

**Join TSRA at STS Trainee Opportunities in CT**

**Participate in STS Resident Events on Sunday, January 31, 2021**  
**Free STS 2021 Registration is Available!**  
 Don't miss your chance to take part in one of the most-anticipated virtual annual meetings in cardiothoracic surgery—**STS 2021**. STS provides complimentary annual meeting registration for its Candidate Members, so make sure you [register today!](#) The annual meeting, January 29-31, will allow you to network with surgical leaders and hear about the latest research findings, innovative technologies, and techniques that you can immediately put into practice.

**STS Annual Meeting: January 29-31, 2021**  
**Registration Link:** <http://bit.ly/2Wz59me>

**Programs specifically designed for CT surgery trainees will occur on Sunday January 31, 2021 in conjunction with STS 2021.**

**STS Candidate/Pre-Candidate Membership**  
**Link:** <http://bit.ly/3h59ZuM>

**STS Residents Luncheon Sunday, January 31, 2021**  
**1:30 p.m. — 2:30 p.m., ET**

**Edwards Lifesciences Minimally Invasive Mitral and Tricuspid Course**  
**Link:** <http://bit.ly/3pqGxJk>

The 2021 STS Residents Luncheon will be a unique virtual event that will address important issues facing cardiothoracic surgery trainees. Attendees will hear from leaders in the specialty and be paired with experienced surgeon leaders in virtual breakout rooms. Trainees will rotate breakout rooms to discuss important topics from among the following:

**Medtronic Mechanical Circulatory Support Webinars**  
**Link:** <http://bit.ly/2WzAYY9>

**Education**  
 How important is additional fellowship training after residency?  
 What is the role of dedicated research time during residency training?

**Medtronic TAVI Advanced Symposium Webinars**  
**Link:** <http://bit.ly/2Wzxyvs>

**More Than Heart & Lung Surgery**  
 What is the field of cardiothoracic surgery doing to address gaps in diversity?  
 Are there any gaps in your training outside of clinical care that need to be addressed?

**Fellows Webinar Series: Preparing the Next Generation of Cardiothoracic Surgeons.** Sponsored by Edwards Lifesciences  
**Link:** <https://bit.ly/2KopnWw>

**CT Surgery in the Real World 2021-2041**  
 What is the current state of the job market?  
 What role should cardiothoracic surgeons and professional societies like the STS play in public health crises?

**Associate Membership in the TSRA:**  
**Link:** <https://bit.ly/3avRiF4>

**STS Residents Symposium Sunday, January 31, 2021**  
**2:30 p.m. — 4:00 p.m., ET**

**CTSN Event List**  
**Link:** <http://bit.ly/3aKq7hp>

The residents symposium at the STS Annual Meeting offers practical early career information and an opportunity to ask questions of experienced surgeon panelists in a virtual environment. The 2021 Symposium will include the following talks:

**SEKATS 13**  
**Link:** <http://www.sekats.org/>

- How to Set Yourself up for Success During Your Residency and Beyond
- Academic and Private Practice Employment Paradigms, Including Contracts
- Key Steps to Finding the Right Job / Five Things I Wish I Knew Before Taking My First Job
- Achieving Personal Financial Security
- Achieving Work/Life Integration and Personal Wellness

**2nd Annual Sutureless Summit**  
 2nd annual Sutureless and rapid deployment valve technology held in October 18-19, 2021. Contact [quinnr@mmc.org](mailto:quinnr@mmc.org) for questions.  
**Link:** <http://bit.ly/2Ym7HVX>

**STS/TSRA Residents Reception Sunday, January 31, 2021**  
**6:30 p.m. — 7:30 p.m., ET**

**TSRA Atticure Career Development Webinar on Congenital Cardiac Surgery:**  
**The Thoracic Surgery Resident Association presents a webinar focused on transition to practice and early career development in congenital cardiac surgery.**

CT surgery trainees are encouraged to attend the STS Residents Symposium to network with their fellow residents in a social setting. TSRA leaders will also announce recipients of the 2021 Socrates Award, McGoon Award, Traveling Fellowship and Global Outreach Fellowship.

Elizabeth Stephens, MD, PhD  
 Damien LaPar, MD, MSC  
 Moderated by Garrett Coyan, MD, MS

**Register today for STS 2021!**

**Register Here**  
**Link:** <http://bit.ly/3imW80U>

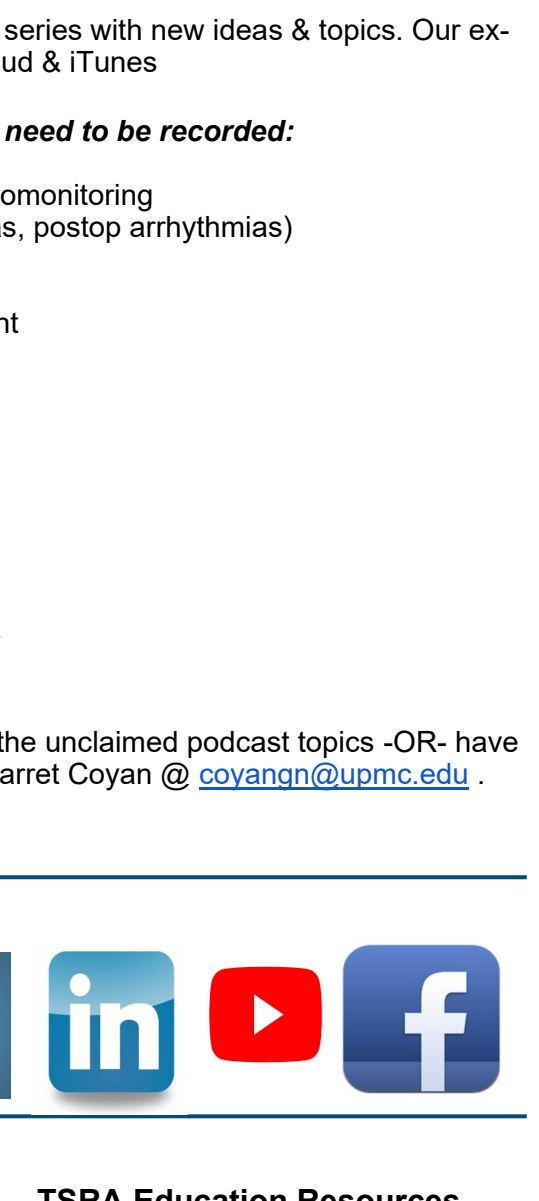
**Newsletter Editorial Staff**

- Clauden Louis — Editor
- Evan Rotar — Trainee Opportunities
- Alex Brescia — President's Address
- Jessica Luc — Manuscript of the Month
- David Blitzer — Featured Podcast
- Parth Patel — Abstract & Conference Dates
- Yihan Lin — Global Health
- Fatima Wilder — Diagnostic Challenge
- Garrett Coyan — TSRA Educational Resources

**2nd Annual Thoracic Surgery Residents Association Presidential Address: Enter the Arena**

**Alex A. Brescia MD**

One year ago, Dr. Xiaoying Lou wrote the inaugural Thoracic Surgery Residents Association (TSRA) Presidential Address,<sup>1</sup> which was featured in the first issue of our newsletter.<sup>2</sup> Since that time, our organization has transitioned to an entirely virtual presence – just one of the many ways in which the pandemic has changed the lives of cardiothoracic trainees everywhere. Many hospitals across the country have enacted hiring freezes and decreased elective operative volume. Some trainees have experienced redeployment to other services, disruption in their communities and homes, and even personal illness.<sup>3,4</sup> At the same time, we did not allow the pandemic to deter our learning. New opportunities have emerged, including revamped didactic sessions, national and international collaboration through webinars and conferences, newly-established roles for perioperative virtual care of our patients, and uniquely challenging clinical situations.<sup>3,5</sup>



Cardiothoracic surgery is a field requiring mastery of pathophysiology, technique, communication, and leadership, and these skills have never been more valued and important in healthcare than during the COVID-19 pandemic. In these trying times, it is especially evident that cardiothoracic trainees are well-equipped to lead our communities in critical care settings and to serve patients with acute life-threatening surgical needs. Each day we are reminded of what a privilege it is to train to become a cardiothoracic surgeon, and at the same time, humbled by the accompanying responsibility towards not only oneself, but also one's program, colleagues, healthcare systems, and ultimately patients.

When considering the continued battle against COVID and future of our field post-COVID, a quote from Theodore Roosevelt's famous "Citizenship in a Republic" speech comes to mind. On April 23rd, 1910, he spoke in front of an audience in Paris, with the following version adapted for surgeons:

*"It is not the critic who counts; not the surgeon who points out how the strong surgeon stumbles, or who warns the doer of deeds could have done them better. The credit belongs to the surgeon who is actually in the arena, whose face is marked by dust and sweat and blood; who strives valiantly; who errs, who comes short again and again, because there is no effort without error and shortcoming; but who does actually strive to do the deeds; who knows great enthusiasms, the great devotions; who spends himself in a worthy cause; who at the best knows in the end the triumph of high achievement, and who at the last, if she fails, at least fails while daring greatly, so that her place shall never be filled, at least and timid souls who neither know victory nor defeat."*

Despite the impact of the pandemic, we are in the midst of an important, exciting, and vital time in cardiothoracic surgery. As the baby boomer generation ages, there will be a shortage of all physicians, including cardiothoracic surgeons.<sup>7,8</sup> Our communities call upon us trainees to be prepared, willing, and able to meet this need. We must all step into the arena, carrying the responsibility to emerge stronger from this challenge. Although human interaction remains essential, techniques used in virtual conferences and webinars for reaching broader audiences and facilitating worldwide multidisciplinary collaboration should be retained and amplified.

In addition, mentorship both during and after training is more important than it has ever been for trainees whose operative experiences may have been impacted.<sup>4</sup> This is especially important to the continued development of a diverse workforce that includes women and minorities. Our specialty has historically failed to represent some of the communities that we specially has and missed out on these large groups of talent.<sup>9,10</sup> A transformation to an specialty begins with its newest members. As an organization, the TSRA is committed to gender, racial, socioeconomic, and thought diversity among the trainees who will lead our specialty into the future. This requires unified action towards reform, ranging from medical student recruitment and an improvement in workplace culture, to equitable Professor and Chair-level promotions. Legitimate change can only come from entering the arena and advocating for change through sustained action.

Lastly, the nature of our operative work is also undergoing a transformation. Training in minimally-invasive and transcatheter procedures often performed in collaboration with interventional cardiologists, radiologists, pulmonologists, vascular surgeons, and others is no longer an option, but a requirement. Moreover, while technical excellence in surgical approaches, both old and new, can never be compromised, our training must also prepare us to be emotionally intelligent and purposeful physicians who are skilful in our abilities to think, act, lead, listen, and address conflict in the face of immense pressure. The same skills that make cardiothoracic residents coveted assets to any healthcare system that make the COVID-19 pandemic must be utilized by cardiothoracic trainees and surgeons to successfully lead our specialty into the future.

Cardiothoracic trainees have reason to approach each day with great hope and optimism. As an organization, the TSRA will remain at the forefront of establishing new training paradigms and efficient educational platforms to support our residents. To trainees: devote yourselves to your families, communities, and craft "in the arena" – our future is worth it.

**References**

Lou X. [Thoracic Surgery Residents Association Inaugural Presidential Address: Preserving the Passion in Cardiothoracic Surgery Training.](#) *J Thorac Cardiovasc Surg.* 2020;160(4):1002-1003.  
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**Manuscript of the Month**

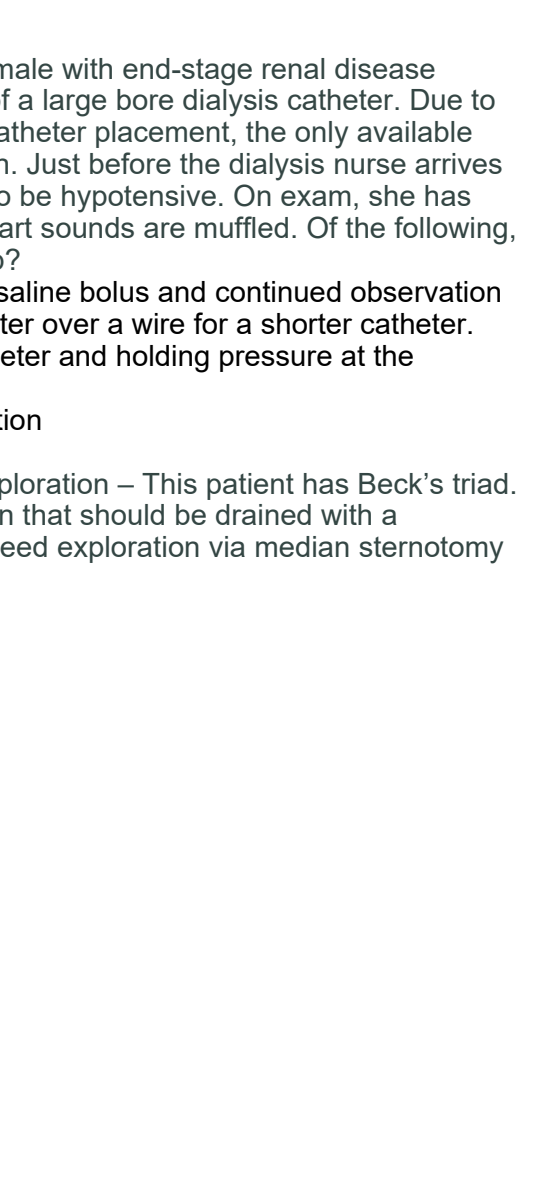
By: **Jessica Luc**

**Title of Feature Manuscript:** Development and Evolution of the Thoracic Surgery Residents Association

**Authors:** Xiaoying Lou, Alexander A. Brescia, Clauden Louis, Jason Han, David Blitzer, J. Hunter Mehaffey

**Abstract**

The Thoracic Surgery Residents Association (TSRA) was established in 1997 as a trainee-led organization under the guidance of the Thoracic Surgery Directors Association (TSDA) to represent the interests and meet the educational needs of cardiothoracic surgery residents across North America. Since its founding, the TSRA has continuously evolved and expanded in order to further its primary mission. In addition to now offering text and audio based educational resources the TSRA acts to connect students, trainees, and faculty with the ultimate goal of fostering relationships that will benefit not only individuals but the field of cardiothoracic surgery as a whole.



**Question and answer with lead author Dr. Xiaoying Lou, Cardiothoracic surgery resident at Emory University:**

**Question 1: Congratulations on your work and publishing this important article in the *Annals of Thoracic Surgery* examining development and evolution of the Thoracic Surgery Residents Association (TSRA). As past president of the organization, what were the main takeaway points from the manuscript?**  
 Thank you! The purpose of this manuscript was to highlight the significant contributions of the TSRA over the years since its inception in 1997, its legacy in developing resident-led initiatives that have benefited trainees past, present, and future, and recognize some of the key personnel that have been instrumental to its success.

We describe the evolving organizational structure of the TSRA, its expanding collaborations with the AATS and STS, as well as TSRA provisions, which include educational resources and awards for faculty and residents. None of this would be possible without the support of our major societies, the TSDA, our administrative support staff (particularly Beth Winer!), the trainees who have chosen to be a part of the TSRA Executive Committee (EC) over the years, as well as the countless residents who have collaborated on TSRA initiatives across the country and globe.

**Question 2: Can you tell us more about your journey through the TSRA to presidency?**  
 I started my involvement with the TSRA early by serving as a committee member on the Projects Committee as an intern, gradually increasing my level of responsibility within the organization over the years. I increasingly enjoyed my experiences, taking an active role on multiple projects in my early years on the EC, including spearheading the TSRA Intern Guide and Pocket Mentor booklets, subsequently becoming Projects Committee Chair in 2017-2018 and then Secretary in 2019-2019. From there, I was privileged to be elected and serve as TSRA President, 2019-2020, a phenomenal experience that I will always remember fondly!

**Question 3: Would you have some advice to those who are looking to get involved with the TSRA?**  
 Get involved early and get active within the organization! Join a committee and participate in TSRA events and projects. And if you find yourself enjoying your experiences, think about applying for a position on the EC! The TSRA EC looks for enthusiastic and committed individuals who are invested in making a difference and share in our mission to improve resident education and training. We represent the interests and needs of residents across the country, and we want the EC to be representative of our diverse interests and paths within the field of CT surgery.

**Question 4: What do you see the next steps for the TSRA to be for cardiothoracic surgery trainees?**  
 We remain committed to updating and improving upon the resources we already have available to residents, in concordance with changing practice paradigms and new technological advancements within the field. Moreover, I think the next steps will include efforts to collaborate with other stakeholders, including industry and our major societies, to support residents during training and beyond.

We also hope to be able to bridge the gap between those just looking to enter the field (i.e. medical students, general surgery residents) as well as our colleagues across the globe in similar organizations and work together to create meaningful opportunities for all trainees – perhaps, one of the silver linings of this COVID pandemic is the opportunity to engage virtually and start to work on these relationships!

Once again, thank you for your time and congratulations on an important manuscript.

**Citation:** *Lou X, Brescia AA, Louis C, Han J, Blitzer D, Mehaffey JH. Development and Evolution of the Thoracic Surgery Residents Association. Ann Thorac Surg.* 2020 Nov 4;S0003-4975(20)31859-2. doi: 10.1016/j.athoracsur.2020.08.062. Epub ahead of print. PMID: 33159865.

**Featured TSRA Podcast**

By: **David Blitzer**

This month, we are featuring the second part of our series on the impact of COVID-19 for medical students and residents. In this episode, we have a panel discuss [Finding a Job in the COVID-19 Era](#). Close readers will remember that we featured the first part of the series, [Applying to Cardiothoracic Surgery Residency During COVID-19](#), in a previous newsletter. All of these and more can also be found at [the podcast main site](#). Happy listening!

**Call for New TSRA Podcast Ideas**  
 We want to expand our popular podcast series with new ideas & topics. Our existing collection is available on Soundcloud & iTunes

**Here is a list of unclaimed topics that need to be recorded:**  
 - Adult Cardiac  
 - Brain and spinal cord protection + neuromonitoring  
 - Electrophysiology (common arrhythmias, postop arrhythmias)  
 - Total arterial revascularization  
 - Managing/interrogating LVAD  
 - Transcatheter Mitral Valve Replacement  
 - AVR: sutureless vs. Traditional  
 - General Thoracic  
 - Advanced endoscopy + POEM  
 - Thoracic outlet syndrome  
 - Esophageal motility disorders  
 - Congenital  
 - Palliative Procedures  
 - Career  
 - Residents as teachers  
 - Ethical research practice in CT surgery  
 - Imperative care vs. futility

If you are interested in recording one of the unclaimed podcast topics -OR- have new topics to propose, please contact Garrett Coyan at [coyancn@umc.edu](mailto:coyancn@umc.edu).

**TSRA Executive Committee (2020-2021)**

- Alex Brescia  
University of Michigan  
President
- J. Hunter Mehaffey  
University of Virginia  
Vice President
- Clauden Louis  
University of Rochester  
Secretary and Communications Chair
- Anthony Mozzer  
Northwestern University  
Treasurer
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- Fatima Wilder  
John Hopkins University
- Yihan Lin  
University of Colorado  
Hospital

**TSRA Educational Resources**

- TSRA Clinical Scenarios in Cardiothoracic Surgery (2nd Ed)**  
 Kindle & print available **NOW!!!**  
 1. As a print book on Amazon.  
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- TSRA Multiple Choice Review of Cardiothoracic Surgery**  
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Check out the official website with free registration. Open collaboration product with free content questions. Questions updated frequently, 588 questions. Authentic feel.

**Abstract Deadlines and Conference Dates**

By: **Parth Patel**

**If there are meetings you would like to see here please contact Parth M. Patel, parth.mukund.patel@emory.edu**

| Meeting  | Submission deadline | Location             | Dates               |
|--|---------------------|----------------------|---------------------|
| <b>Cardiovascular and Thoracic Specific Meetings</b>                         |                     |                      |                     |
| Society of Thoracic Surgeons (STS)   | August 11, 2020     | Virtual              | Jan 29 - 31, 2021   |
| Annual Update on Pediatric & Congenital CV Disease Conference                | November 30, 2020   | Virtual              | Feb 11-14, 2021     |
| International Society for Heart and Lung Transplantation (ISHLT)             | October 27, 2020    | Toronto, Canada      | Apr 27-30, 2021     |
| AATS Mitral Conference   | January 6, 2021     | New York, NY         | Apr 29-30, 2021     |
| American College of Cardiology (ACC)   | December 2, 2020    | Atlanta, GA          | May 15-17, 2021     |
| American Association of Thoracic Surgery (AATS) & Aortic Symposium           | October 27, 2020    | Seattle, WA          | May 1-4, 2021       |
| Transcatheter Valve Therapy (TVT) Structural Heart Summit                    | April 15, 2020      | Chicago, IL          | June 9-12, 2021     |
| International Society of Minimally Invasive Cardiothoracic Surgery (ISIMICS) | December 14, 2020   | Warsaw, Poland       | June 17-19, 2021    |
| Western Thoracic Surgical Association (WTSA)                                 | January 11, 2021    | Victoria, BC, Canada | June 23-26, 2021    |
| Extracorporeal Life Support Organization                                     | July 15, 2020       | Indianapolis, IN     | Sep 30- Oct 3, 2021 |
| Eastern Cardiothoracic Surgical Society                                      | July 27, 2020       | Virtual              | Oct 7-10, 2020      |
| European Association for Cardio-Thoracic Surgery (EACTS)                     | April 30, 2020      | Barcelona, Spain     | Oct 14-16, 2021     |
| International Thoracic Surgical Oncology                                     | August 17, 2020     | Virtual              | Oct 16-17, 2020     |
| Transcatheter Cardiovascular Therap  | June 15, 2020       | San Francisco, CA    | Oct 22-26, 2021     |
| Congenital Heart Surgeons' Society   | May 26, 2020        | Chicago, IL          | Oct 24-25, 2021     |
| CHEST Annual Meeting   | May 31, 2020        | Vancouver, Canada    | Oct 24-27, 2021     |
| American College of Surgeons (ACS)   | August 7, 2020      | Washington, D.C.     | Oct 24-28, 2021     |
| Surgical Treatment for Arrhythmias and Rhythm Disorders                      | September 11, 2020  | Virtual              | Oct 30-31, 2020     |
| Southern Thoracic Surgical Association                                       | April 5, 2020       | Atlanta, GA          | Nov 3-6, 2021       |
| American Heart Association (AHA)   | June 4, 2020        | Virtual              | Nov 13-15, 2021     |
| Resuscitation Science Symposium  | June 4, 2020        | Virtual              | Nov 13-15, 2021     |

**General Surgery Meetings of Interest**

|  |                   |                  |                    |
|--|-------------------|------------------|--------------------|
| Academic Surgical Congress (ASC)         | August 7, 2020    | Virtual          | Feb 2-4, 2021      |
| American Surgical Association (ASA)      | November 16, 2020 | Seattle, WA      | Apr 15-17, 2021    |
| American Transplant Congress (ATC)       | December 4, 2020  | Seattle, WA      | June 5-9, 2021     |
| American Society for Artificial Inter... | February 1, 2021  | Washington, D.C. | June 9-12, 2021    |
| Southeastern Surgical Congress (SESC)    | February 19, 2021 | Atlanta, GA      | August 21-24, 2021 |
| Southern Surgical Association (SSA)      | July 31, 2020     | CANCELLED        | Dec 6-9, 2020      |

| Abstract Deadline Status | Upcoming | Prior Year for Upcoming | Passed for Upcoming |
|--------------------------|----------|-------------------------|---------------------|
|--------------------------|----------|-------------------------|---------------------|

**Diagnostic Challenge**

By: **Fatima Wilder**

A 59-year-old woman presents to your office with report of a productive cough that has been worsening for the past 6 months.

- ROS: No fevers, chills. Intermittent acid reflux, early satiety and sometimes feels like she burps up her food for hours after eating
- PMH: GERD, sarcoidosis
- PSH: EGD with biopsy, shoulder surgery
- Allergies: Seasonal
- Rx: Pilsocic

**Diagnosis:** Alveolar proteinosis with achalasia

-Pulmonary alveolar proteinosis (PAP) is not a single disease, but rather a syndrome  
 -Alveolar surfactant builds up, limiting oxygenation of the blood and ultimately resulting in dyspnea  
 -Diseases that cause PAP can be grouped into three categories:  
 -primary (autoimmune (85-90%) or hereditary),  
 -secondary, and  
 -congenital (5% of all the rest in combination with secondary causes)  
 -The natural history typically follows the clinical course of the underlying disease.

-Symptoms (vary depending on the underlying etiology):  
 -Dyspnea is most common: Most patients develop dyspnea very slowly, typically noticing it only with activity at first and eventually also at rest  
 -Fingerflaps may appear cyanotic  
 -Cough may be dry or productive  
 -Fatigue, weight loss, chest pain, or a general feeling of ill health (malaise) can also occur.

-XR can be used in workup but CT, typically reveal extensive white patches within the lungs (ground glass opacity) with superimposed angular lines (reticular densities).

**Pulmonary alveolar proteinosis - management**

Therapy for PAP varies depending upon what disease is present, disease severity, and the age of the patient.  
 In autoimmune PAP~30% do not have symptoms and 5 – 7% improve spontaneously.  
 Of those needing therapy, whole lung lavage (WLL) is the current standard therapy. WLL is a procedure done with the patient asleep in which excess surfactant is 'washed' out of one lung with copious saline irrigation

In secondary PAP, removal and avoidance of the causative agent (e.g., silica dust exposure) or successful treatment of the underlying disorder may improve symptoms.  
 Treatment of congenital PAP is generally supportive. Lung transplantation has been successfully used in infants and children with congenital PAP.

In our patient, the underlying diagnosis is believed to be secondary PAP due to achalasia (note the dilated esophagus).

**References**

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**TSRA Educational Resources and Multiple Choice Questions**

By: **Garrett Coyan**

**Question 1:** In what percent of cardiac surgery patients does HIT occur?  
 2-3%  
 15-20%  
 25-30%

**Answer: A:** HIT occurs in 2-3% of postoperative patients. 15-20% of patients may form platelet antibodies without developing HIT.

**Question 2:** In a patient with a traumatic hemothorax, which of the following is NOT an indication for urgent exploration?  
 >1500 mL output immediately following tube thoracostomy  
 Persistent air leak for 48 hours  
 Hemodynamic instability

**Answer: C:**