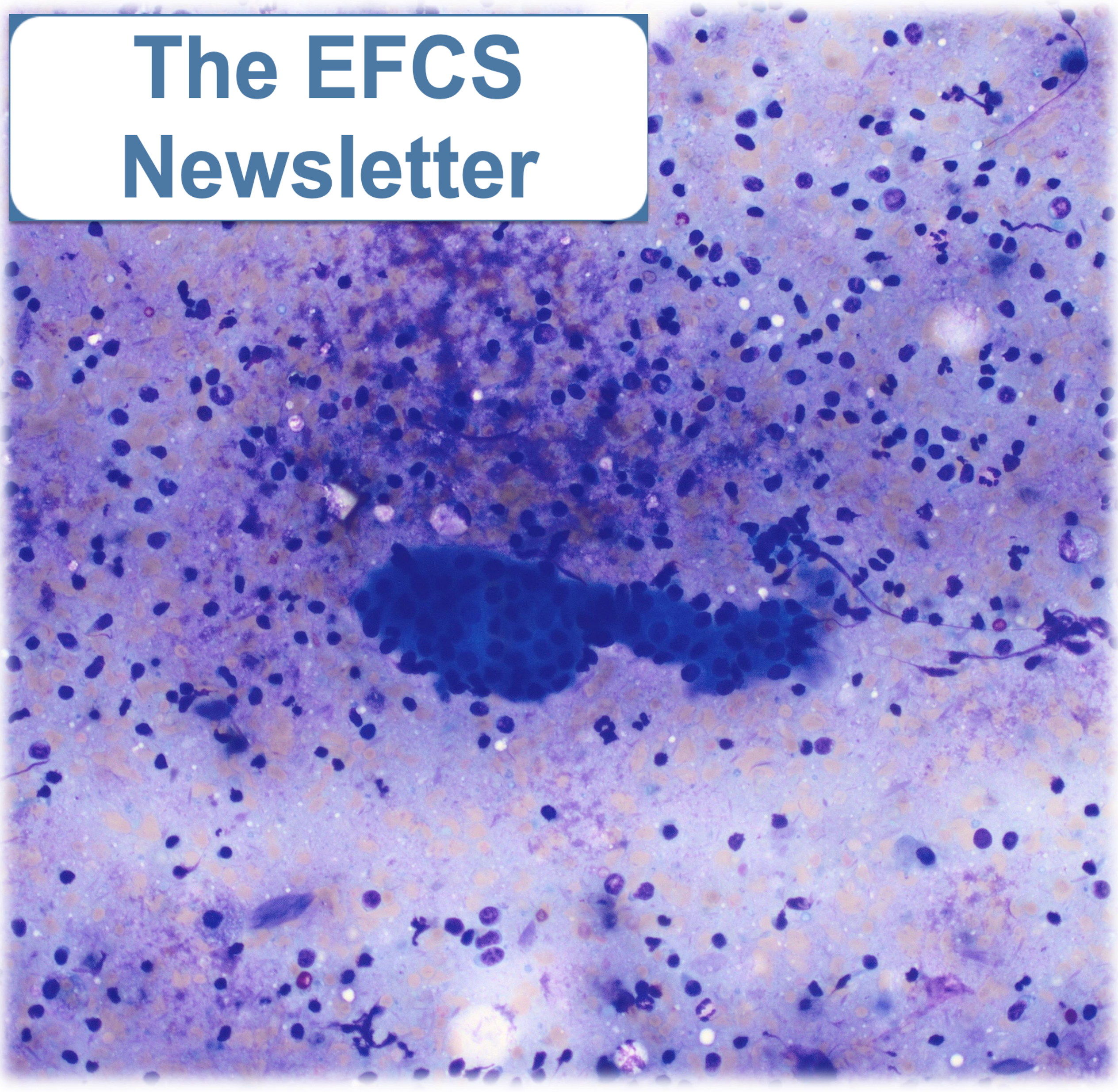
EFCS
European Federation of Cytology Societies

The EFCS Newsletter



Issue 1/2023

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EFCS NEWSLETTER ISSUE 1/2023

EFCS European Federation of Cytology Societies

Dear Friends and Colleagues,

Welcome to the first issue of the EFCS Newsletter in 2023!

As we start this new year, it is the right moment to reflect on the future of our beloved discipline. In recent years, the introduction of liquid-based cytology, automation, molecular biology techniques, and digital imaging have revolutionised the way cytology is practiced. These technologies are still being upgraded and we are continuously learning about them, but even at this point their usage has increased the sensitivity and specificity of cytological diagnosis, enabling earlier detection of cancer and more personalised treatments.

2023 is bringing numerous opportunities to share our experiences on how to use modern technologies more efficiently. We have started this year on a high note with the 2nd EFCS Joint Webinar and the next occasion to meet will be during the 14th EFCS Annual Tutorial which is held in Toulouse, France in June. Invitation and more details about this meeting can be found in this issue. Then, in the early October we will meet in Budapest, Hungary at the biggest European cytology event, the European Congress of Cytology, which is back after one-year break.

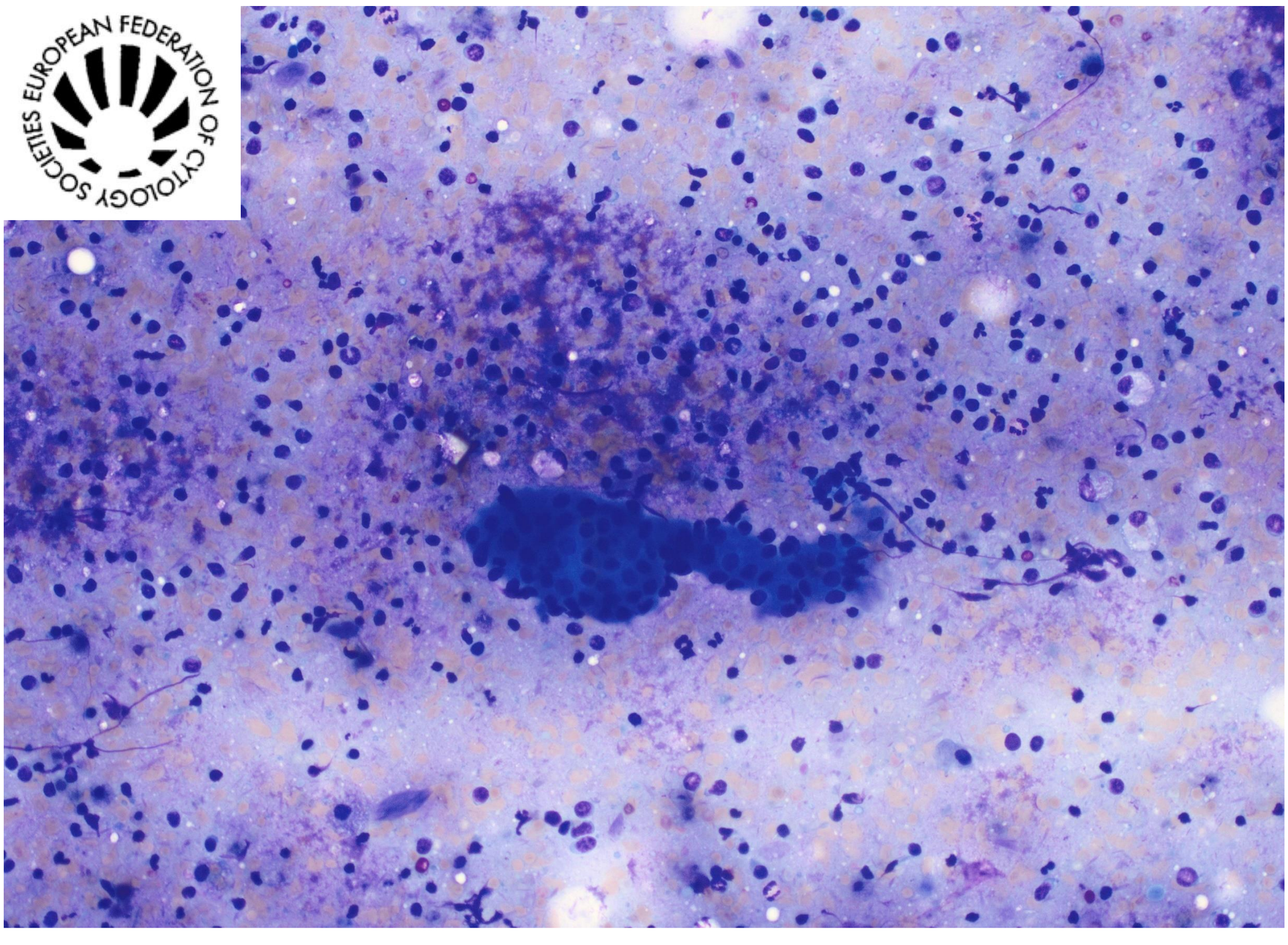
While thinking about the future we should not forget our past and legacy. This year Prof. Kari J. Syrjänen, mentor to couple of generations of cytopathologist, is celebrating his 75th birthday. You can read more about Professor's life achievements in this issue. Happy Birthday Professor!

Also in this issue, our Czech Friends present a story of forgotten Prof. Leo Taussig, the pioneer of the complex cerebrospinal fluid evaluation. His brilliant career was brutally stopped by the Nazis during the Second World War. This was a truly heartbreaking moment in history that we can only hope will not be repeated again. Looking forward to a more peaceful future we are optimistic that representatives from all European societies would be able to join us in Budapest in October for the much-anticipated Congress.

Pawel Gajdzis
Residents and YEFCS Committee

EFCS NEWSLETTER ISSUE 1/2023

In this issue:



Cover photo:
Warthin Tumour(MGG)

Message from the EFCS Secretary General

Dear friends and colleagues,

Is it really over? I mean COVID… It seems it is, looking at the rebound phenomenon which we experience every day. Let me share the situation in my department in which the number of procedures and analyses increased by 20-30% even compared to pre-COVID time. I believe the same is with your labs as well. And the offer of educational and scientific meetings, courses, congresses, webinars in cytology is so overwhelming that it is sometime hard to choose. But, in fact, it is great! It means that cytology is developing and spreading fast, as a discipline of major diagnostic potential. Especially using new molecular and digital technologies. EFCS tries to stay on top of it, with successful online educational contents, free webinars, on-site annual Tutorials, and the largest events of European Congresses of Cytology. EFCS closely cooperate with all major cytology organisations, and we are proud that this year, we established a stronger relationship with American Society of Cytopathology, and a small but intense EFCS team will represent European cytology in the next ASC meeting in November 2023.

When we look back, maybe the COVID brought us closer together. In the beginning of the pandemic, the imposed on-line communication now became an asset, easy and normal like drinking water (or coffee). I feel that cytology community worldwide is interconnected more than ever.

So, cytology rocks, as Ivana would say!

All detailed information of EFCS activities is available on the website: https://www.efcs.eu/

Stay tuned!

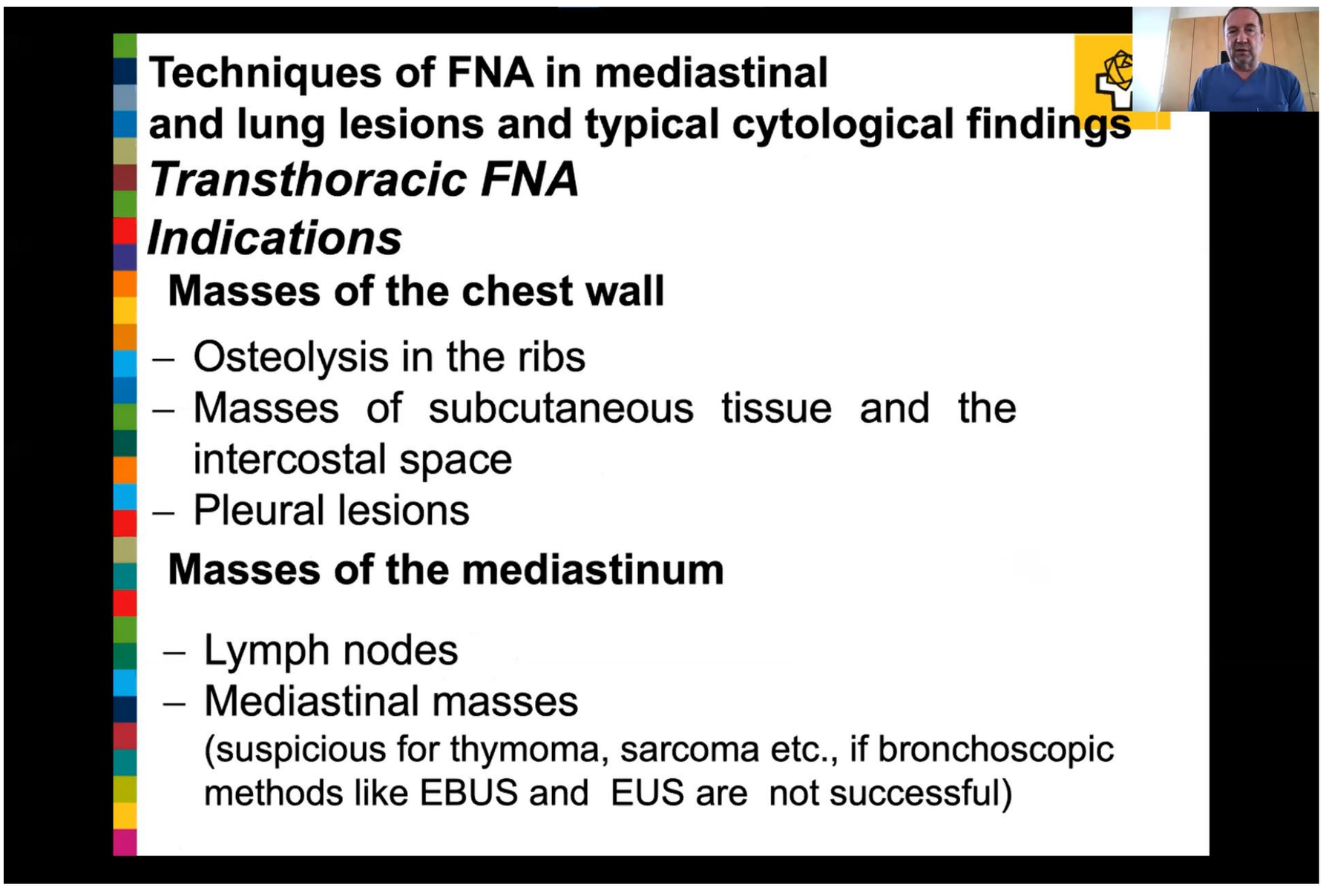
Danijela Vrdoljak-Mozetič
EFCS Secretary General

Report on the 2nd EFCS Joint Webinar on Lung Cytology, 17th January 2023

On 17th January 2023 the second joint webinar on cytopathology, initiated by the EFCS, has taken place. This time lung cytopathology had been the topic - a large field, in which cytopathology has made an important impact for diagnostics and in which many recent developments have occurred. The webinar has been organized by Dr. Maria Lozano from Pamplona/Spain and Dr. Marianne Engels from Cologne/Germany from the Spanish Society of Cytology and the German Society of Cytology, respectively.

In the first part of the webinar, Dr. Lozano from Pamplona and Dr. Ralf Heine from Halle in Germany have given two general lectures on FNA of lung and mediastinal lesions and on biomarkers in cytological samples.

Dr. Heine started with an overview on the techniques of transthoracic, transbronchial and transesophageal aspiration. Photos of the clinical procedures, short videoclips and photos of the microscopic slides obtained during the procedures illustrated various clinical conditions and diseases.



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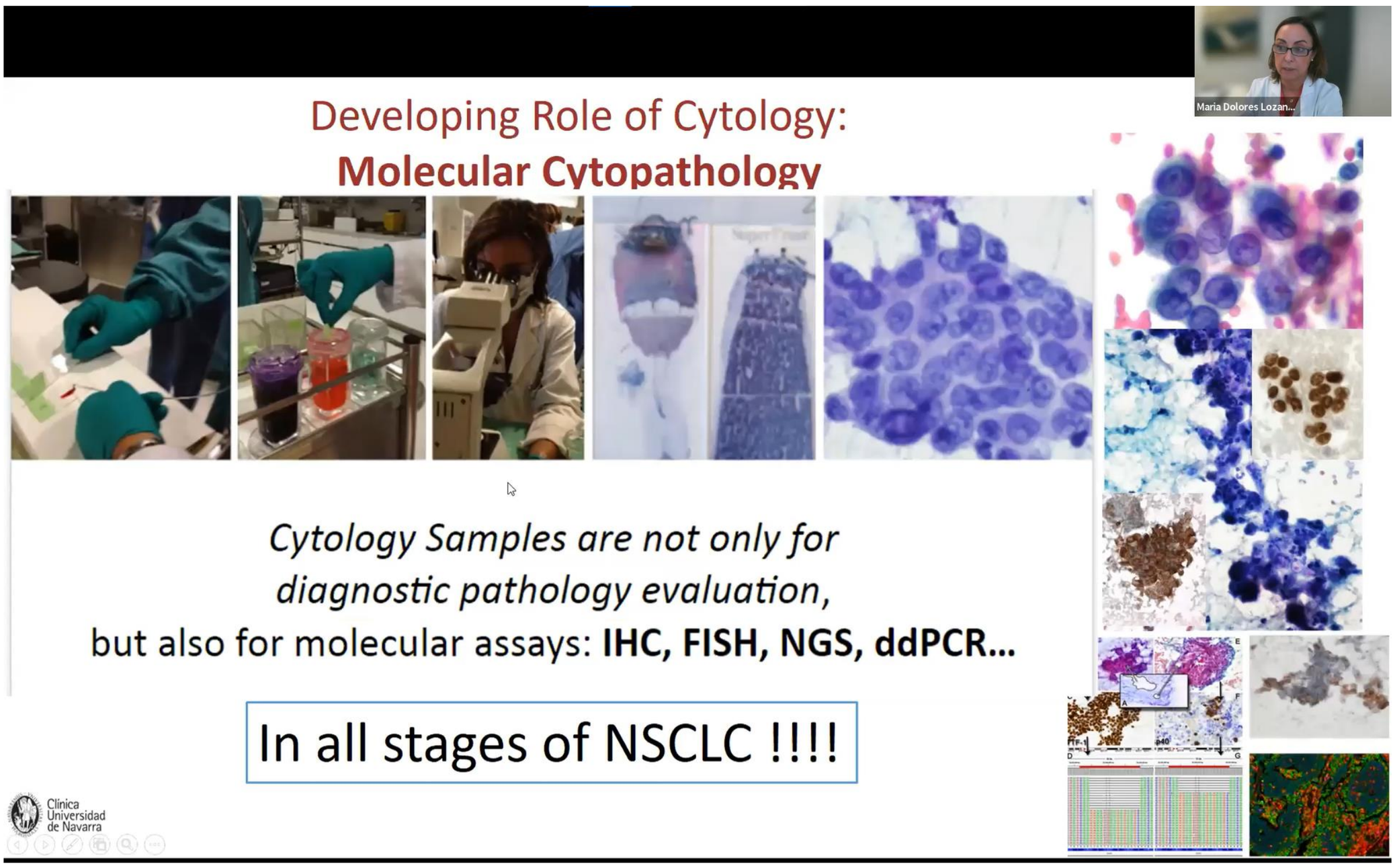
Report on the 2nd EFCS Joint Webinar on Lung Cytology, 17th January 2023

Dr. Lozano proceeded with the very important topic of biomarkers. The timely and precise diagnosis of lung cancer is required for correct treatment of every single patient in the time of personalized medicine. Cytological samples may be used for immunocytochemistry including predictive markers and for all the required molecular diagnostics. She gave a fascinating outlook on the complex technique of multiplex immunoassay to evaluate the tumor environment.



Both talks lead to a lively discussion with lots of questions from the attendants, many of them asking after very special aspects of techniques, e.g. of cell block preparation and of immunocytochemistry.

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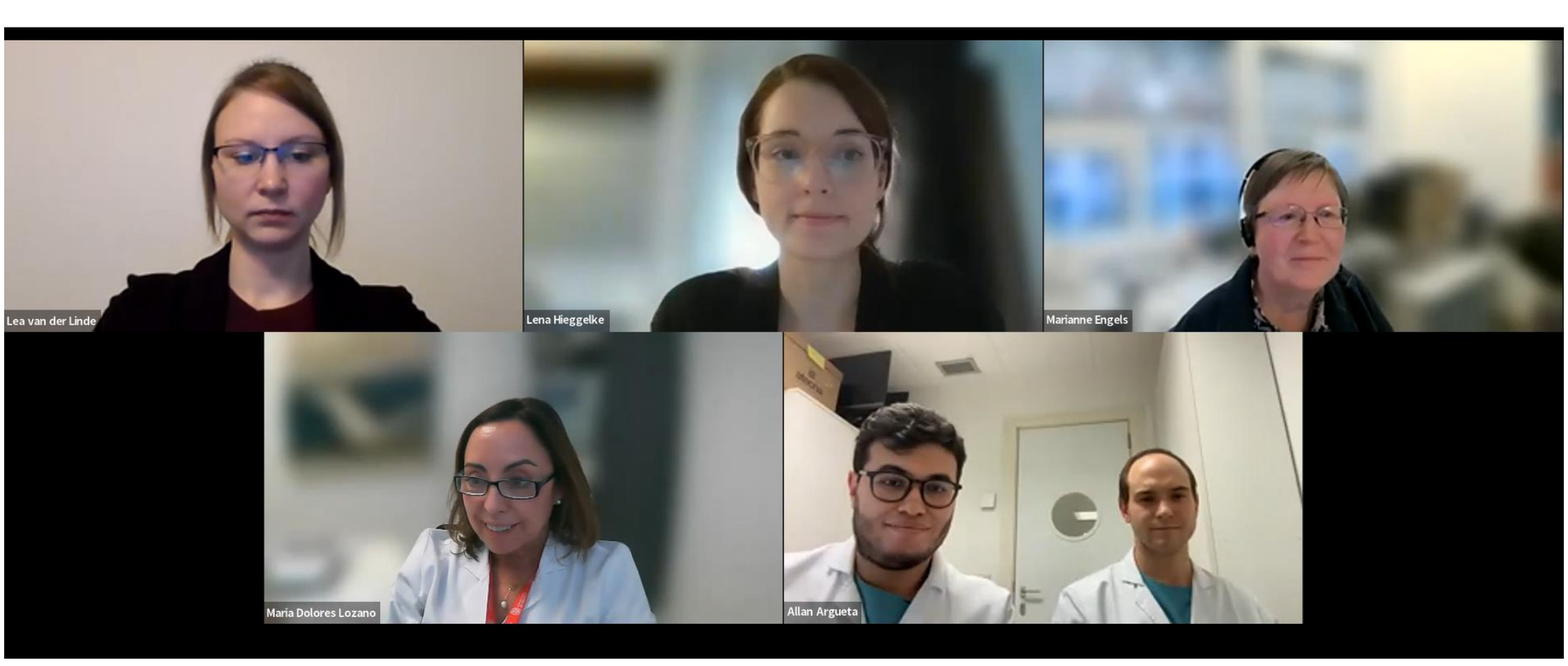
Report on the 2nd EFCS Joint Webinar on Lung Cytology, 17th January 2023

In the second part of the webinar four younger colleagues from Spain and from Germany presented one interesting case each. Dr. Argueta from Pamplona presented a case of malignant melanoma with the question of a pulmonary primary or a metastasis. After him Dr. Hieggelke from Cologne presented a case of pulmonary adenocarcinoma in a patient with a history of colorectal cancer. Then Dr. Robledano from Pamplona presented a case of pulmonary adenocarcinoma with coexistence of EGFR mutation and NTRK fusion. Last, but not least Dr. van der Linde from Hamburg presented a case of solitary fibrous tumor showing the pathognomonic STAT6 gene fusion. After further discussion on the cases Dr. Lozano closed the webinar.

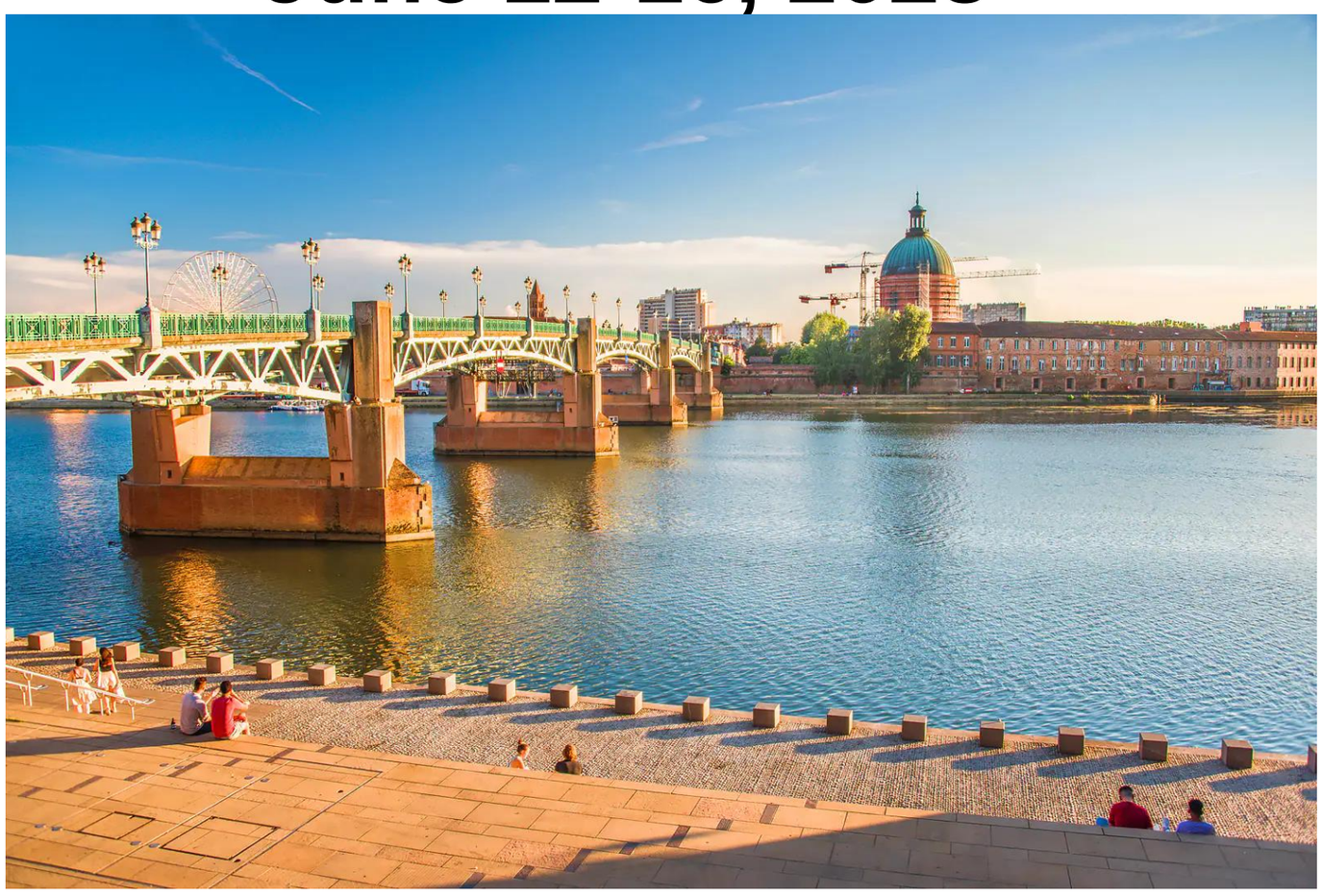


The webinar had more than 600 registrants from all five continents. More than 400 of them were attending the live webinar, among them about 280 medical doctors and more than 100 cytotechnicians. The recording of the webinar is available via the EFCS webpage until the end of April 2023.

Marianne Engels

EFCS Educational Committee

SAVE THE DATE!
The 14th EFCS Annual Tutorial, Toulouse
June 12-16, 2023



The 2023 annual EFCS Tutorial will be organized according to the classic Tutorial format, which is based on on-site microscopy workshops and lectures covering the most important topics in cytopathology. Also, this year the Tutorial will make large use of virtual slides, which will be made available in advance to the participants and discussed live at the end of each microscopy workshop. Topics include respiratory, thyroid, salivary glands, breast, urine, soft tissue, serous effusions, pancreas and gynecologic cytology. Moreover, lectures on molecular cytology, ROSE and digital cytology will be included. The EFCS Tutorial will give the possibility to cytopathologists and cytotechnicians to participate at an event with high educative and practical value, held by renowned European tutors. A week of full immersion in the world of cytology, together with participants from all around Europe and even extra-european countries.

SAVE THE DATE!
The 14th EFCS Annual Tutorial, Toulouse
June 12-16, 2023

The venue of this year's Tutorial will be Toulouse, a city in the south of France. The city's unique architecture made of pinkish terracotta bricks has earned Toulouse the nickname La Ville rose ("The Pink city"). Toulouse counts three UNESCO World Heritage Sites: the Canal du Midi, the Basilica of St. Sernin, the largest remaining Romanesque building in Europe, along with the former hospital Hôtel-Dieu Saint-Jacques, because of their significance to the Santiago de Compostela pilgrimage route. Toulouse is also the centre of the European aerospace industry, with the headquarters of Airbus, the SPOT satellite system, ATR and the Aerospace Valley. It hosts the CNES's Toulouse Space Centre (CST) which is the largest national space centre in Europe. Moreover, Toulouse is famous for its typical gastronomy from the south west of France. Do not hesitate to join us !

Giovanni Negri and Arrigo Capitanio
Tutorial chairs

Monique Courtade-Saidi
Local host

PROGRAM AND REGISTRATION: https://www.efcs.eu/14th-annual-efcs-tutorial/

Prof. Syrjänen´s 75th Birthday

The Editor-in-Chief of Acta Cytologica, Past-President of Finnish Society for Clinical Cytology, organizer of the 19th European Congress of Cytology in 1991 in Turku and renowned HPV scientist Prof. Kari J. Syrjänen, M.D., Ph.D., FIAC celebrated his 75th Birthday on March 20, 2023.

He was born in Hollola, Finland and spent most of his childhood in Lahti, where he also finished the secondary school in 1967. He graduated from the Medical Faculty, University of Helsinki in 1974 doing voluntary research during studies. His PhD Thesis on prognostic factors in breast, gastric and colorectal cancer was accepted in the Medical Faculty in 1975. Prof. Syrjänen started specializing in pathology in January 1977 at Helsinki University Hospital. His great affection to cytopathology dates to these early years of his specialist training.

He confirmed the HPV observations of Purola and Meisels, and published several early HPV-reports, short after those two originals. Prof. Syrjänen built up his international status as one of the pioneers and opinion leaders in HPV research. Together with his wife Prof. Stina Syrjänen, DDS, PhD they formed a highly active HPV research team, known worldwide in the field since those days. Apart from the contributions in genital HPV infections, several pioneering observations linking HPV to several non-genital malignancies as well (e.g., oral-, laryngeal-, sinonasal-, bronchial-, and esophageal carcinomas) were done.

Fig. 1: Kari Syrjänen enjoying European Congress of Cytology (and cigar!) in Budapest (1999) together with Volker Schneider and Leopold Koss

Fig. 2: Speakers at Finnish Society for Clinical Society Companion meeting at Joint meeting of IAC and ASCP in Baltimore last year: Leena Krogerus, Jussi Tarkkanen, Ivana Kholová, Kari Syrjänen, Stina Syrjänen

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In addition to many research activities, Prof. Syrjänen has also participated in administration of several national and international professional societies. He was president of the Finnish Association of Pathologists for 5 years (1985-1989), and President of the Finnish Society for Clinical Cytology for 10 years (1989-1998). In the latter position, he was the President of European Federation of Cytology Societies, EFCS (1990-1991) and hosted as President the 19th European Congress of Cytology, in Turku, Finland in 1991.

Prof. Syrjänen has served International Academy of Cytology (IAC) as a member of several different committees since the early 1990's, organized IAC examination in Finland and was also one of the task force chairs in the 1997 IAC Congress in Hawaii: Diagnostic Cytology Towards 21st Century. Most recently, he was nominated as a member of the Research and Publication Committee of IAC in 2022. As a recognition, he was granted the Maurice Goldblatt Award in 2010. IAC invited Prof. Syrjänen to take over the post as Editor of Acta Cytologica after Prof. Marluce Bibbo in 2013. He served as a National Editor (Finland) for 15 years. This year is the 11th for Prof. Syrjänen as the Editor, and he was recently appointed for another 3 years. This term has witnessed highlights and downsides, as all Acta readers are aware. As remarkable evidence of Kari´s (and IAC members) effort, the JIF of 2021 (3.000) is practically doubled since 2013 (1.562), and the deeply rising trend seems to continue.

Prof. Syrjänen is the founding Board Member of EUROGIN (1990), International Papillomavirus Society (IPVS; 1995) and European Course on HPV-Associated Pathology (1992). Another scientific highlight was the 4th International Papillomavirus Congress in Kuopio in 1985.

Prof. Syrjänen is Honorary Member of the American- (ASCPC), Italian- (ISCPC) and Hungarian (HSCPC) Society of Cervical Pathology and Colposcopy. In 2006, he received EUROGIN Distinguished Service Award. He is also the first recipient of the IPVS Lifetime Achievement Award from the International Papillomavirus Society (2015). In 2022, he was invited as a Honorary member of the Finnish Society for Clinical Cytology (SKSY).

Prof. Syrjänen was invited as a speaker in over 300 international congresses since 1981, with an estimated number of >500 oral presentations and innumerable sessions chaired during the past 4 decades. His own research activity has resulted in a remarkable record of 951 original papers, reviews, and book chapters (as to February 2023), over 530 other scientific communications and 9 textbooks. Until present, his research has received nearly 35.000 citations in the literature, with current Hirsch Index (HI) of 93 (i10 index 609).

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Prof. Syrjänen spent a couple of years in Italy as a visiting professor at two prestigious institutes; the 765-year-old University of Siena, and Italian National Health Institute (ISS) in Rome, both being partner research institutes in the two EC-funded international screening projects (NIS and LAMS, respectively), coordinated by Prof. Syrjänen. After this period abroad, Prof. Syrjänen settled down in his current hometown Turku, and was invited to work at the Department of Oncology & Radiotherapy, Turku University Hospital (TUH), where he spent 8 years (2005-2013). The focus of research interest at the Department was gastrointestinal cancers, mostly exploring different predictive and prognostic molecular biomarkers in a clinical patient material. The last 6 years before retirement in January 2019, Prof. Syrjänen served as the Chief Medical Director of a Finnish biotechnology company (Biohit Oyj, Helsinki), with a variety of diagnostic tests as their product portfolio.

In October, at 44th European Congress of Cytology in Budapest Kari will give a talk on HPV research history during a companion meeting of Finnish Society for Clinical Cytology as well as lead a session on publication in cytology.

In a recent issue of Acta Cytologica (https://www.karger.com/Article/Abstract/529952), I was honored and privileged to author a tribute editorial together with IAC and EFCS leads on Kari´s birthday. The issue would be very thick if all colleagues and friends would sign it…

Happy Birthday, Prof. Syrjänen!

Ivana Kholová

President of Finnish Society for Clinical Cytology
EFCS Scientific Committee

Fig. 3: Kari Syrjänen lecturing at Finnish Society for Clinical Society Companion meeting at Joint meeting of IAC and ASCP in Baltimore last year. His talk covered the successful story of cervical cancer screening.

Fig. 4: Honorary membership of Finnish Society for Clinical Society was handed to Kari Syrjänen by Ivana Kholová.

Professor Leo Taussig – An Underestimated Pioneer of Complex Investigation of Cerebrospinal Fluid

While working on a new Eurocytology project chapter on CSF cytology, we felt a natural duty to pay at least a brief reference to the founders of today's level of knowledge in the subject described. The preparation of a national course on cerebrospinal fluid cytology (1) brought us to the surprising finding of the little-known monograph by Professor Leo Taussig published in 1926 (2). The length of 440 pages and the content of this monograph accessible in the Medvik database (3) aroused interest in this work and its author (Fig. 1).

Who was Leo Taussig?

He was born on December 1, 1884 in Tlustice near Hořovice in a wealthy Jewish family.

All nine siblings lived to adulthood. His brother Adolf (1870 - 1913) was a professor at the Charles-Ferdinand University in Prague, a specialist in the treatment of tuberculosis.

Leo Taussig graduated from high school in Žitná street in Prague. After graduating from the Czech Medical Faculty of Charles-Ferdinand University in 1908, Taussig began his professional career briefly as an external ophthalmologist.

After completing his military service in 1909 - 1910 he joined the Psychiatric Clinic. In his youth he was a successful representative of the home village chess club (4) in domestic and international chess tournaments. Later, however, he concentrated on his profession. During the First World War he was a garrison doctor in Bohemia and Austria (in Graz). He was captured on the Russian front.

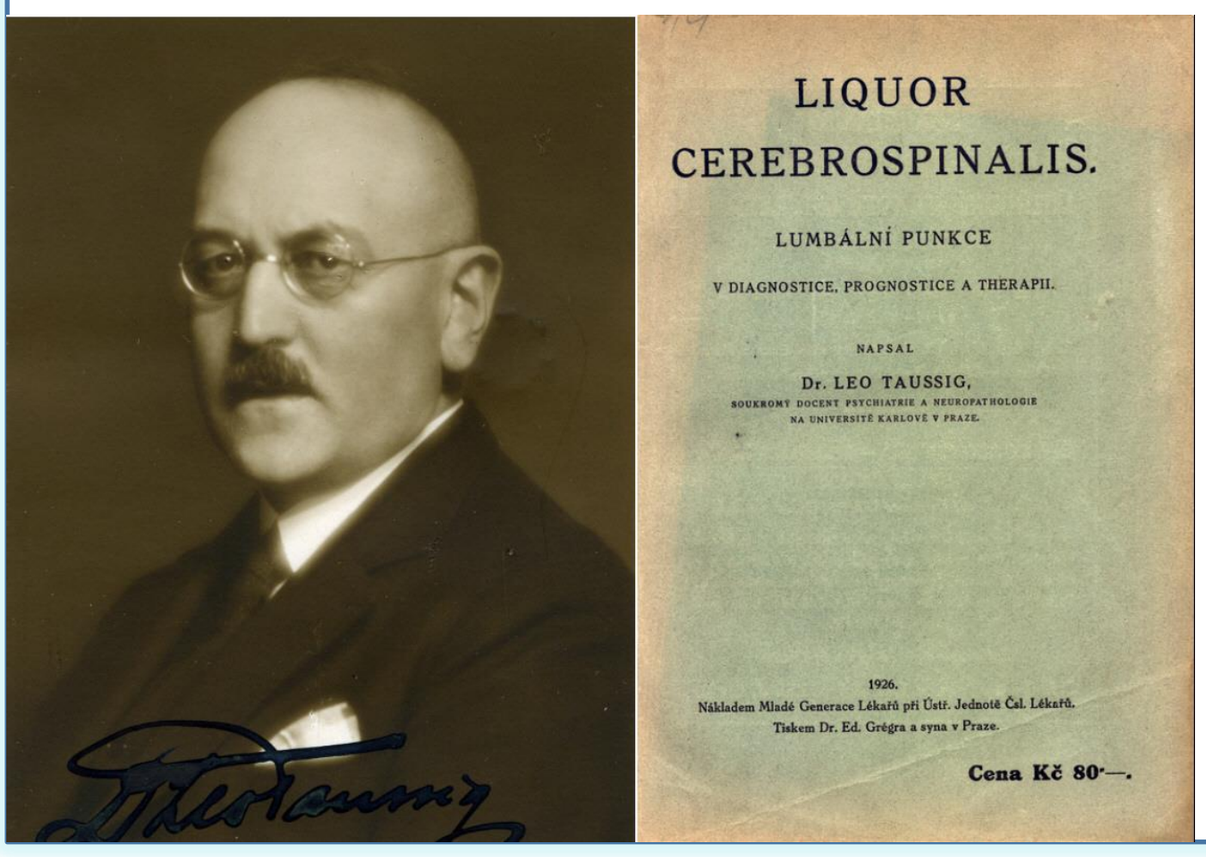

Fig. 1. Portrait of Prof. Leo Taussig (from the portal of the Holocaust database) and the front page of his monograph on cerebrospinal fluid.

After the war he worked at the neurological department of the Divisional Hospital in Prague on Charles Square. He remained single.

Taussig lived in Plavecká Street with his sister's family. There he maintained a private psychiatric and neurological practice after he was habilitated in April 1919 in the field of psychiatry. From 1931 on he worked as an external professor at Charles University.

He started dealing with cerebrospinal fluid soon after - since 1911.

The publication of the extensive monograph was preceded by more than ten partial reports on the origin, physiology, physical and chemical properties of cerebrospinal fluid, clinical aspects-indications and contraindications of lumbar puncture, the problem of induced mental disorders - folie à deux, mental disorders in basilar meningitis…

Leo Taussig was also a forensic expert in the field of neurology and psychiatry. He participated in the evaluation of insanity in the outline of the new Czechoslovak Criminal Code (1930).

The dark period of Taussig's life began with his release from the Divisional Hospital in December 1934 - it is not entirely clear whether this was already a manifestation of the incipient persecution of the Jews. He was charged with assessing the working ability of Jews included in transports. During martial law after the assassination of Reich Protector Reinhard Heydrich prof. Taussig was arrested by the police on Wenceslas Square on June 6, 1942, where Jews were forbidden at that time. A certificate from the Jewish Community in Prague was required to be released.

In December 1942 he was transported to Terezin (Theresienstadt). He was on the list of “Prominenten” (5) along with a number of other prominent Jewish personalities of the scientific and artistic life.

The main and only temporary but uncertain “privilege” of the prominent people was protection from transport.

The Terezín (Theresienstadt) fortress founded in 1780 by Joseph II of Habsburg and named after his mother Maria Theresa became a ghetto in 1941. In fact, it was a transit camp - by 1945, 17515 - 12.5% survived from 139517 deported (Fig. 2).

Fig. 2 . Entrance to the Small Fortress of Terezín (Theresienstadt).

Dr. Oscar Fischer, another outstanding jewish graduate and member of the academic staff of the Charles University in Prague - its German part, died in Theresienstadt 1942, when prof. Dr. Taussig was deported there. Fischer (Fig. 3) was the author of a priority publication on neurodegenerative changes (6) and in Taussig's monograph was also cited as the author of the term "pleocytosis" of cerebrospinal fluid.

Professor Taussig worked in Terezín for two years in the psychiatric ward of the local hospital (Fig. 4). On 12 October 1944, Taussig was placed on a transport to Auschwitz, where he died on arrival.

In the third part of his memoirs (7), Professor Vladimír Vondráček writes about Professor Leo Taussig:

“One of the richest psychiatrists - he was co-owner of Komárov Ironworks. It was quite incomprehensible that he did not leave in time and stayed until the bitter end…”

“He was taller, always elegant, sociable, impeccable. He spoke calmly, slowly, clearly and in writing, correct and beautiful Czech. He only spoke when he had something to say. ”

After the war, his fate was remembered by his colleagues from chess clubs. From an article by K. Zmatlík in Šach (Chess) magazine in 1945 (8):

"Dr. Taussig belonged to the oldest of our generation of chess, which still operates ... his exact methodical game, which was occasionally also elegant, was highly valued and feared by his peers. Later he devoted himself exclusively to the scientific career, he could no longer actively engage in chess, but he never stopped following his further development.

He was executed by the Germans not only as a Jew, but also as a representative of Czech medical science… ”

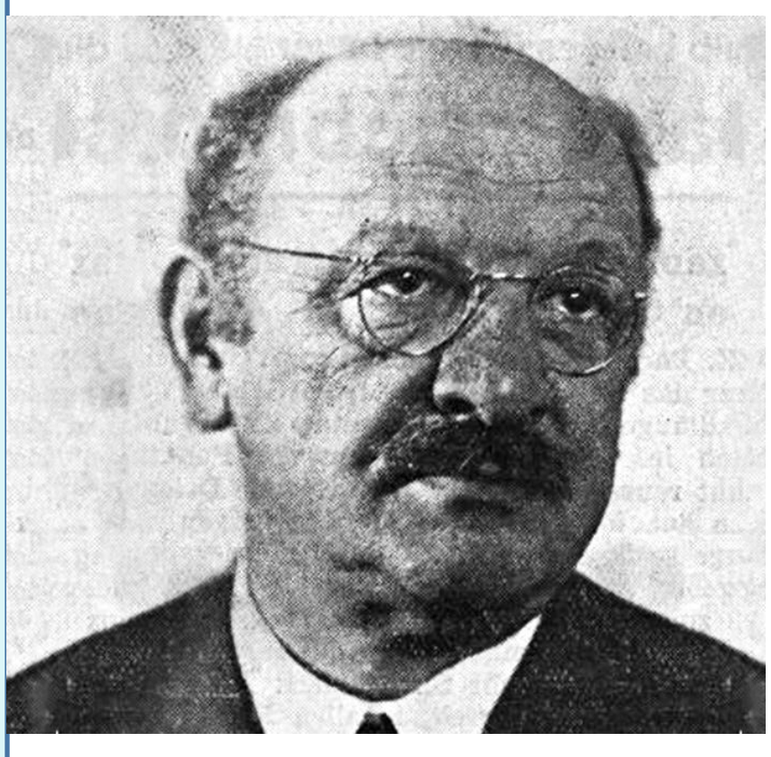

Fig. 3. Portait of Dr. Oskar Fischer

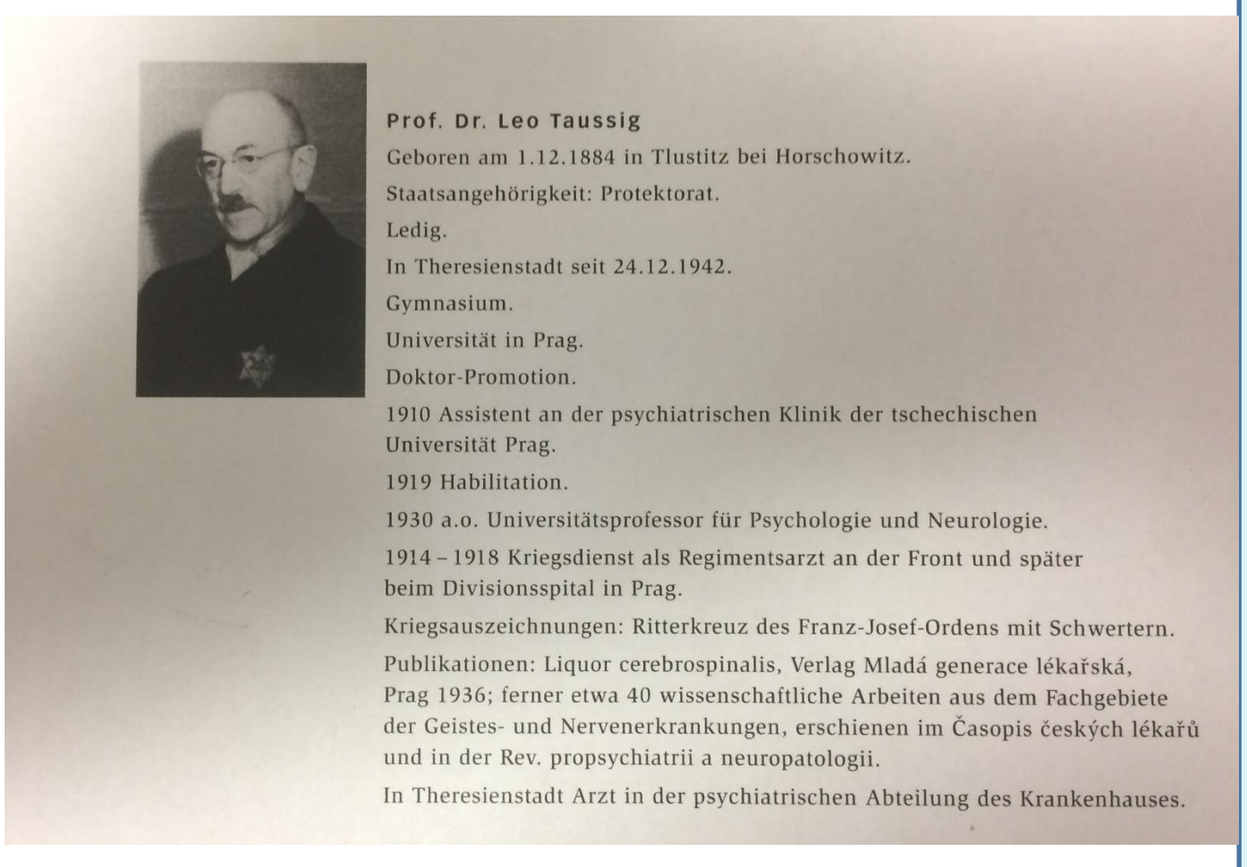

Fig. 4. Portrait and details of Prof. Taussig from the file of the Terezín (Theresienstadt) Ghetto.

Conclusion

Unlike Dr. Fischer's published work in German, which has been found and awarded at least recently (9), Taussig's monograph on cerebrospinal fluid printed in Czech remains internationally unknown despite its remarkably complex treatise.

There is no doubt that the cultivation of national culture and language must be accompanied by communicating quality results in a language understandable to the international scientific community.

The problem of racial intolerance is still with us to this day. Early and violent losses of scientific and pedagogical careers are forever a warning of the dangers that racism can pose to the profession to which we dedicate our own lives.

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[2] Laboratory for liquorology, neuroimmunology, pathology, and special diagnostics, Topelex ltd., Prague, Czech Rep.

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Photos resource: Holocaust Victims Database [online resource]. Prague: Institute of Terezín Initiatives, c2007-2016 [cit. 2023-02-18]. Available from WWW: www.holocaust.cz.

Case Challenges!

Case Challenges!

1

A 72-year-old man presented with a pleural effusion of unspecified localisation. By pleural puncture, 60 ml of yellow, turbid liquid was obtained for cytological examination. After centrifugation of the liquid, cytospin samples were made from the sediment.

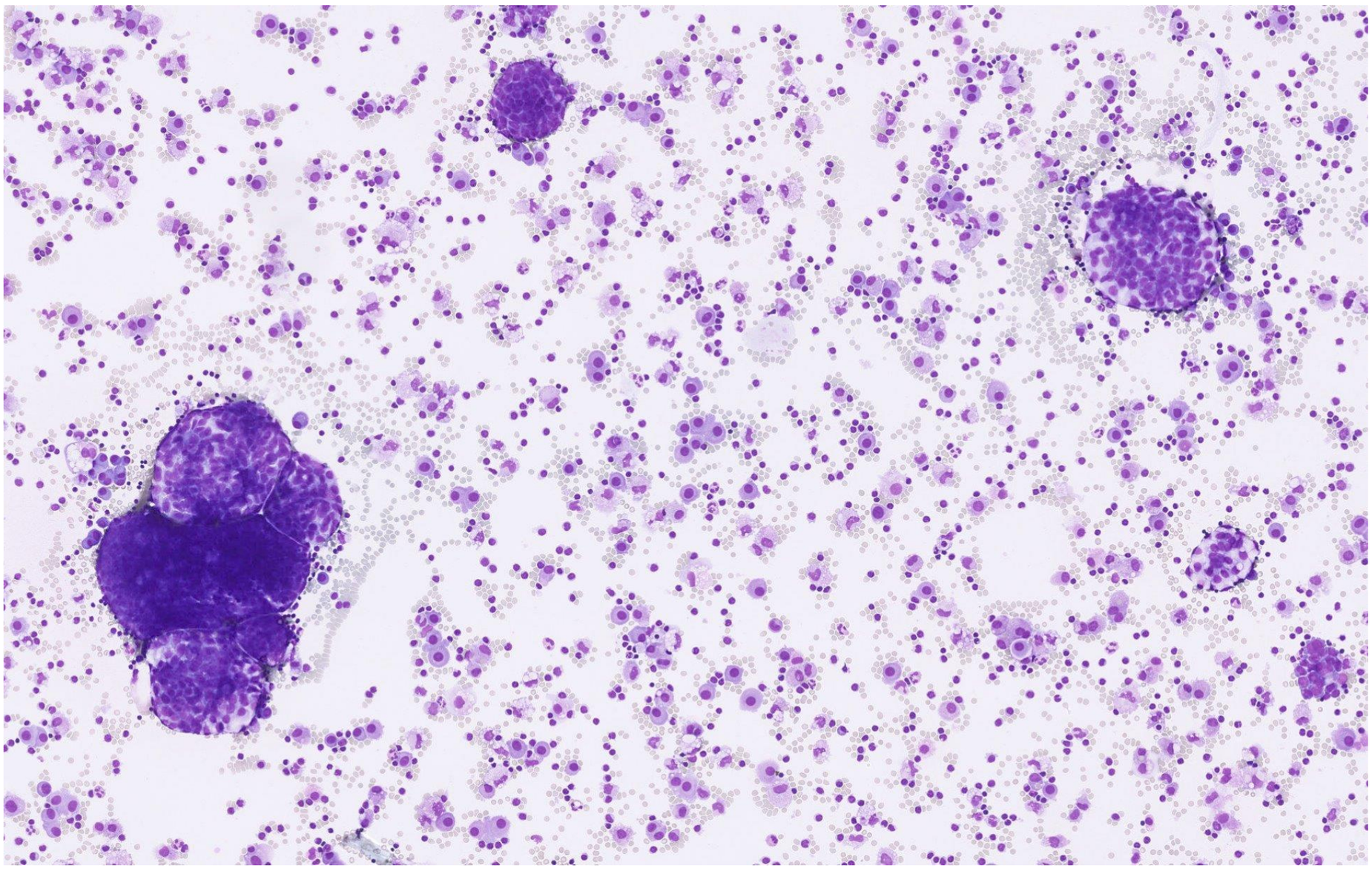

Fig. 1. May-Grünwald-Giemsa stain (MGG), x100

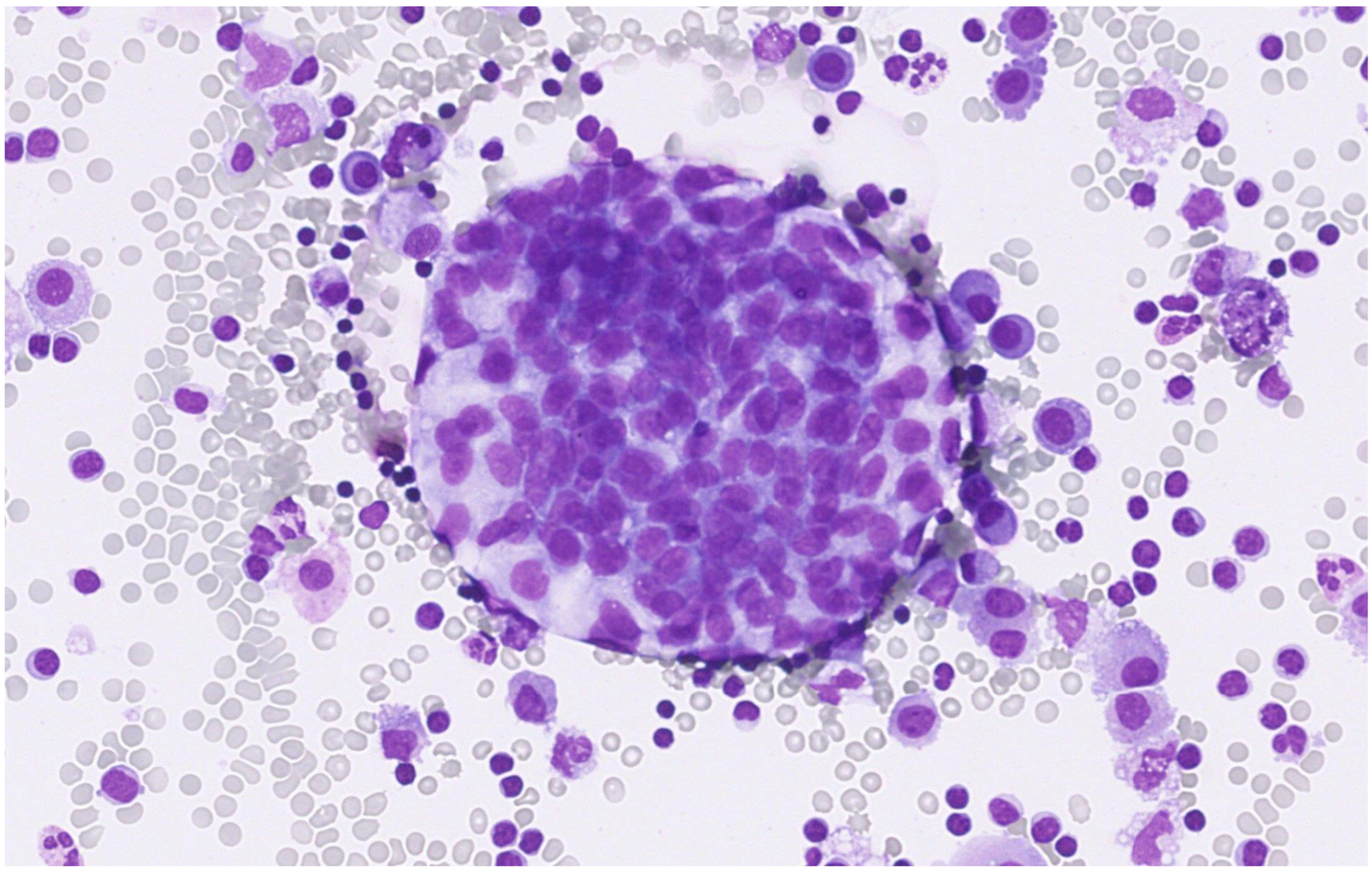

Fig. 2. May-Grünwald-Giemsa stain (MGG), x400

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Case Challenges!

1

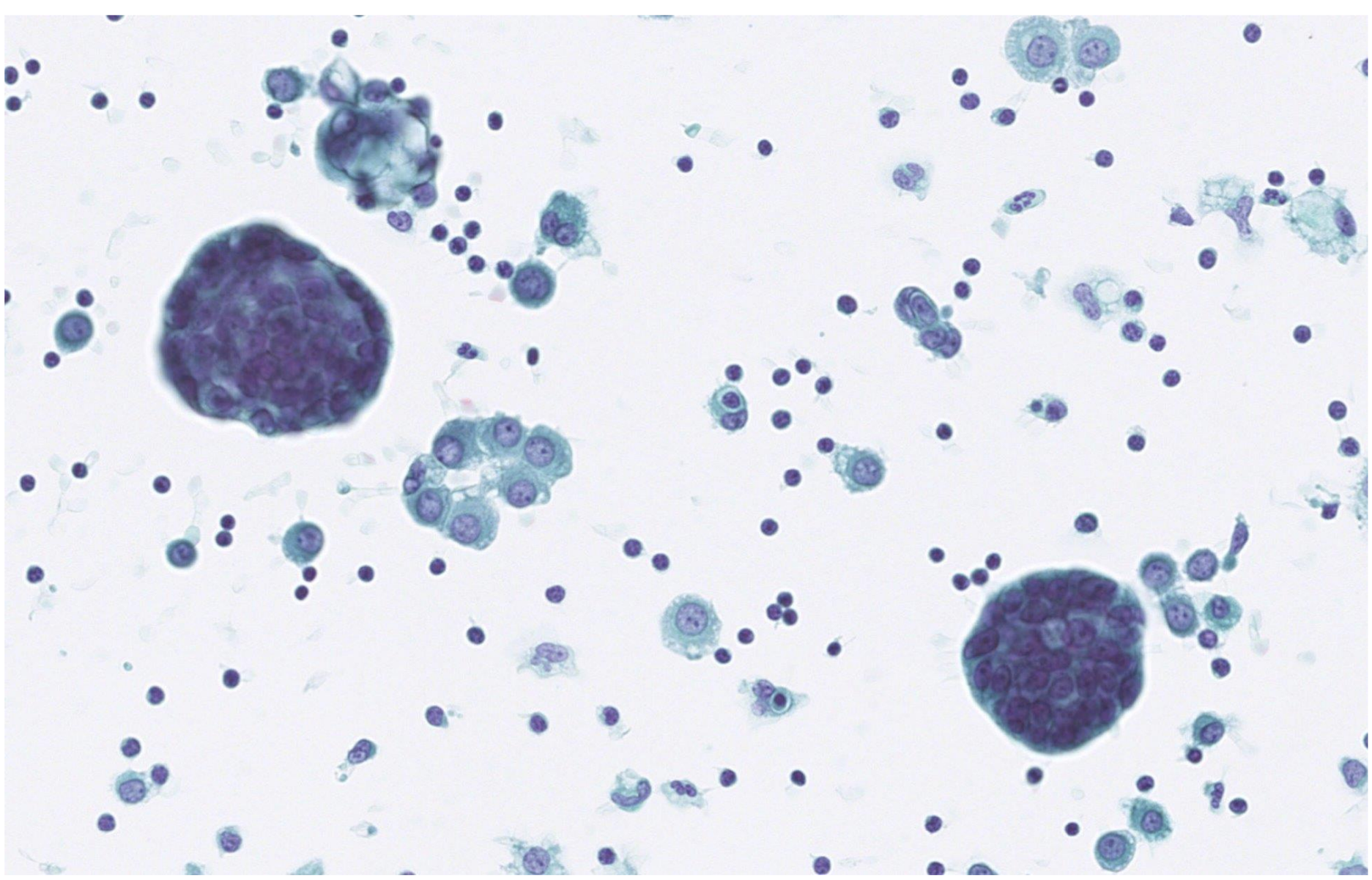

Fig. 3. Papanicolaou stain (PAP), x400

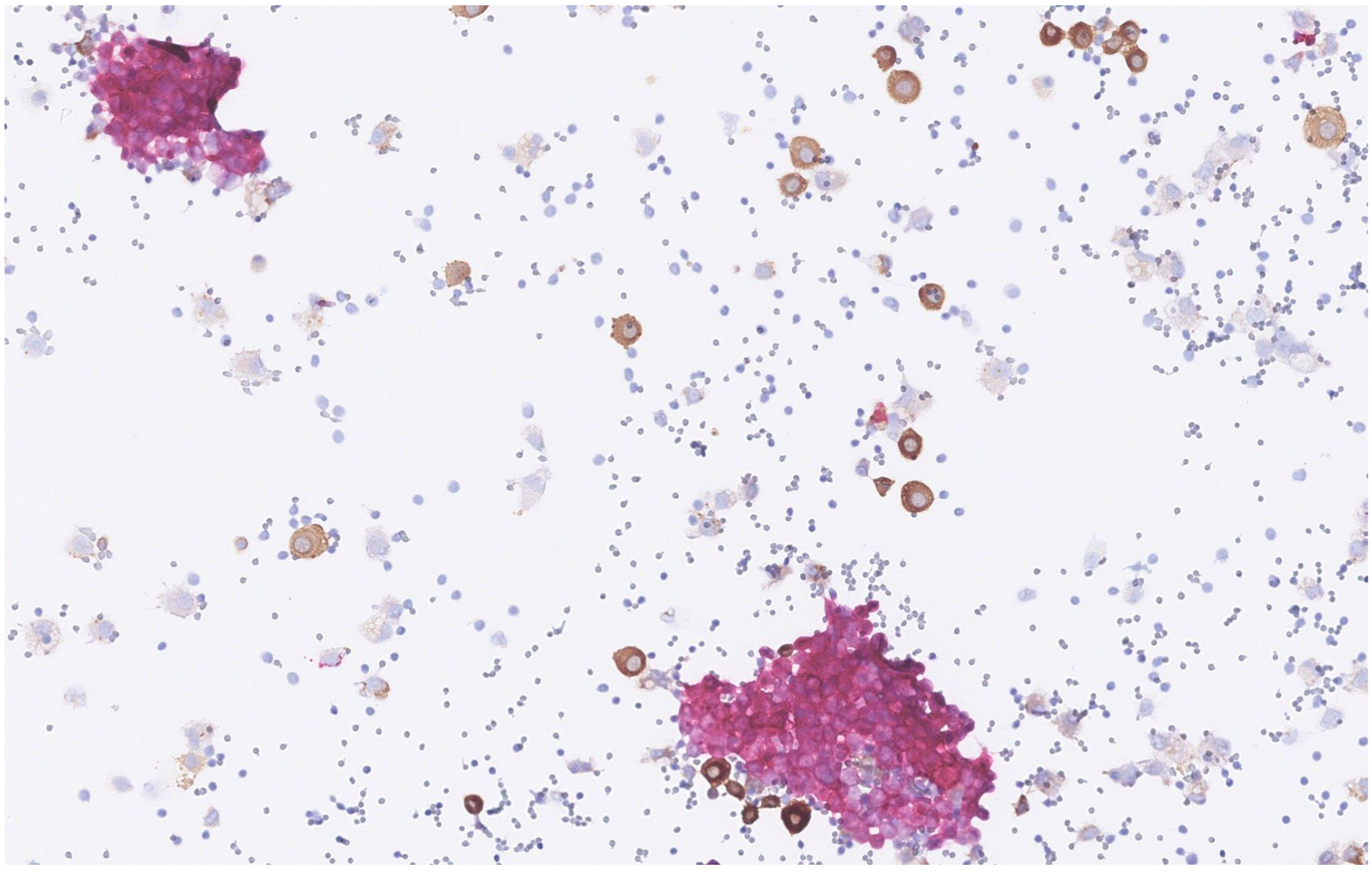

Fig. 4. Double immunocytochemical reaction (ICC) Calretinin/MOC31 (Calretinin brown stain, MOC31 red stain), x200

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Case Challenges!

1

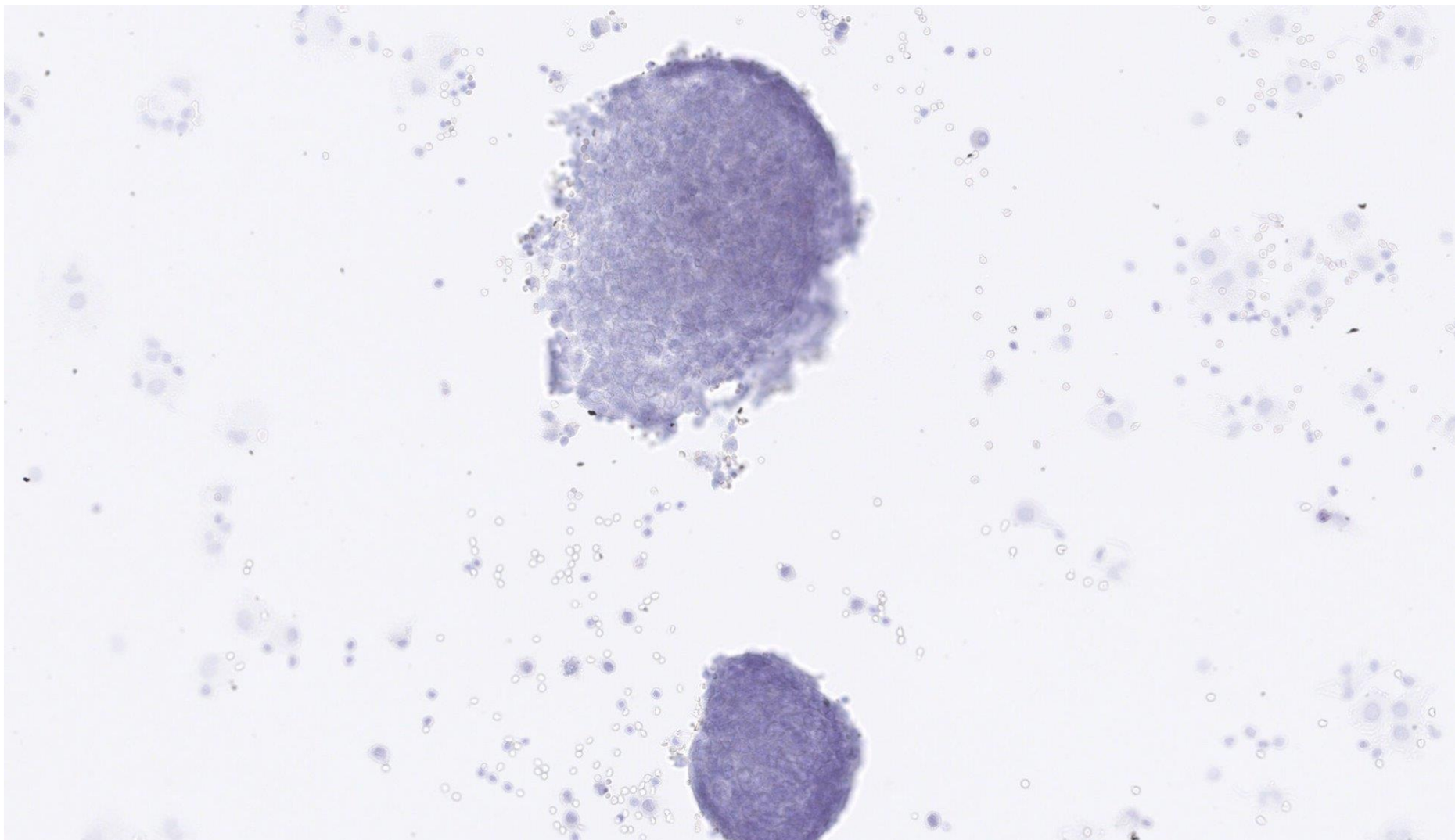

Fig. 5. Immunocytochemical reaction (ICC) TTF1, x200

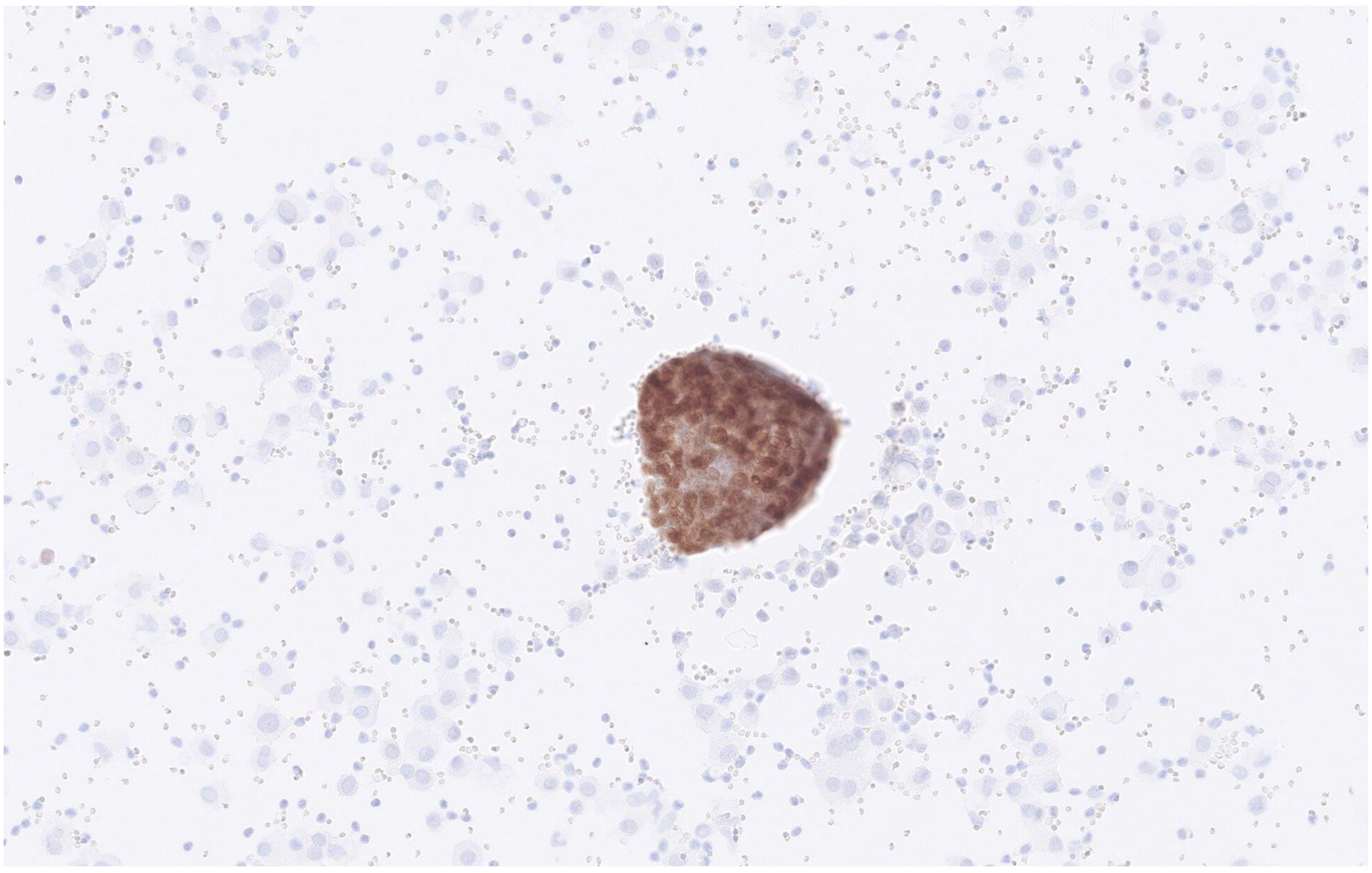

Fig. 6. Immunocytochemical reaction (ICC) NKX3.1, x200

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Case Challenges!

1

A 72-year-old man presented with a pleural effusion of unspecified localisation. By pleural puncture, 60 ml of yellow, turbid liquid was obtained for cytological examination. After centrifugation of the liquid, cytospin samples were made from the sediment.

QUESTIONS

a) Describe what you see.
b) What does it represent?
c) What is its significance?

(continues on the next page)

Case Challenges!

1

A 72-year-old man presented with a pleural effusion of unspecified localisation. By pleural puncture, 60 ml of yellow, turbid liquid was obtained for cytological examination. After centrifugation of the liquid, cytospin samples were made from the sediment.

ANSWERS

a)

- rounded clusters of tumour cells
- scant to moderately abundant cytoplasm
- disrupted nuclear-cytoplasmic ratio in favour of the nucleus
- predominantly oval, hyperchromatic nuclei, irregularly shaped nuclear membrane, coarse-grained chromatin, nucleoli
- many mesothelial cells, macrophages, several lymphocytes, neutrophil granulocytes, and erythrocytes in the background

b) The cytomorphological picture and positive NKX3.1 (ICC) result are consistent with the diagnosis of malignant exudate, secondary, metastatic prostate carcinoma.

c) Depending on the cytomorphological picture, the range of differential diagnoses is wide. With such a cytomorphological pattern, both carcinoma and mesothelioma can be considered. The result of the double immunocytochemical reaction Calretinin/MOC31 confirms metastatic carcinoma (tumour cells are MOC31 positive (red stain) and Calretinin negative (brown stain)). However, the possibility of metastatic primary lung adenocarcinoma is minimal (cytomorphology is not convincing for lung adenocarcinoma, immunocytochemical reaction TTF1 is negative) until the origin of the carcinoma is determined with specific immunocytochemical reactions. Finally, with a positive immunocytochemical reaction NKX3.1, the prostate is confirmed as the origin of the carcinoma.

Comment:
Malignant pleural effusions due to prostatic carcinoma are extremely rare, and only a few cases are published.
We can use different prostate-specific antibodies in the cytological diagnosis of prostatic adenocarcinoma. However, PSMA (prostatic specific membrane antigen) and NKX3.1 are valuable surrogate markers because of their higher sensitivity and specificity compared to PSA and PSAP (prostate specific alkaline phosphatase) immunocytochemical markers in cytology specimens.

Author of the case:
Damjana Cimerman
Residents and YEFCS Committee

References:

Jia L, Jiang Y, Michael CW. Performance of different prostate specific antibodies in the cytological diagnosis of metastatic prostate adenocarcinoma. Diagn Cytopathol. 2017 Nov;45(11):998-1004. doi: 10.1002/dc.23809.

Case Challenges!

2

A 48-year-old woman, day of cycle not reported (more than a month ago), regular cervical screening smear.

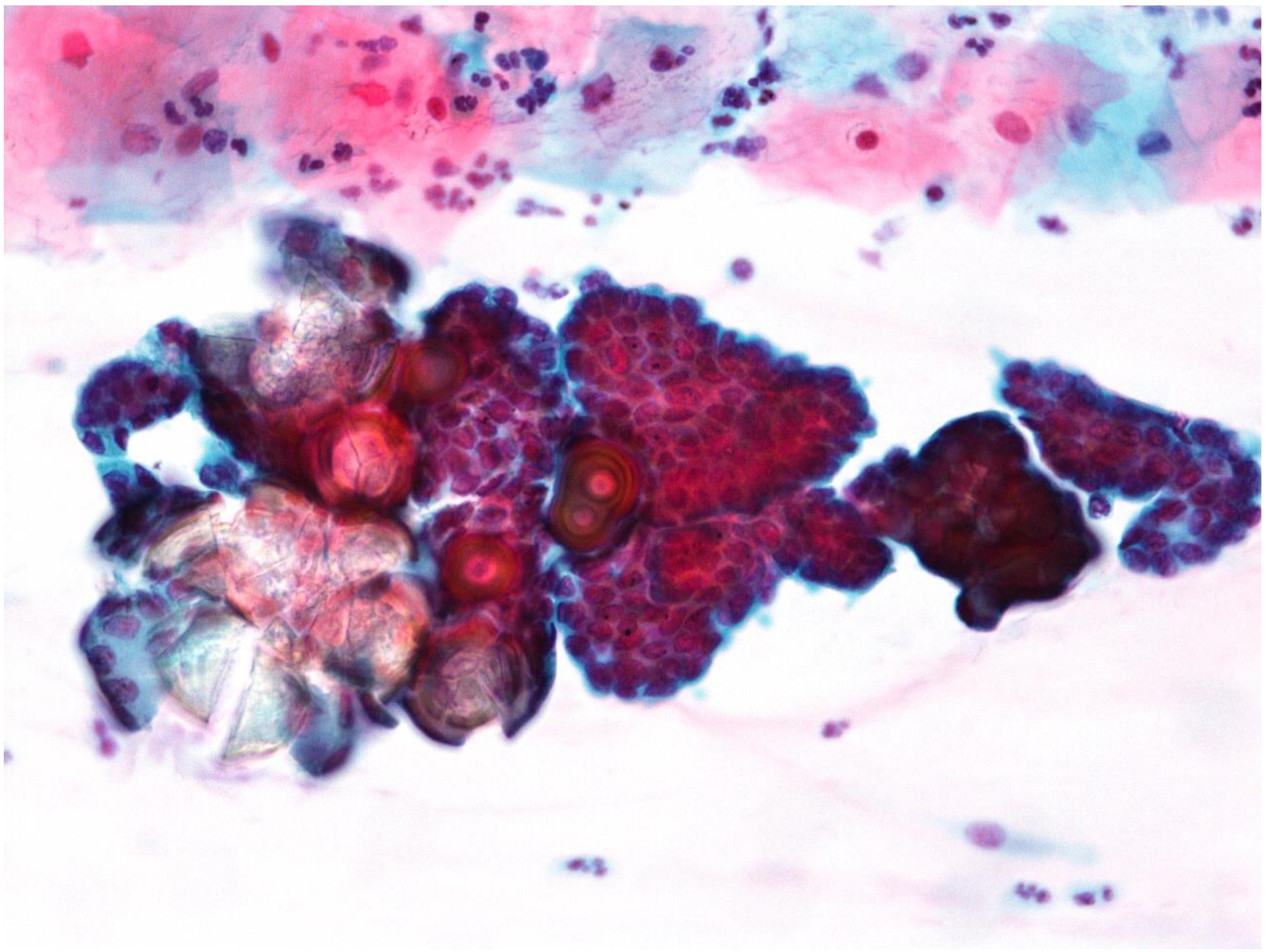


Fig. 1. Papanicolaou stain (PAP), x400

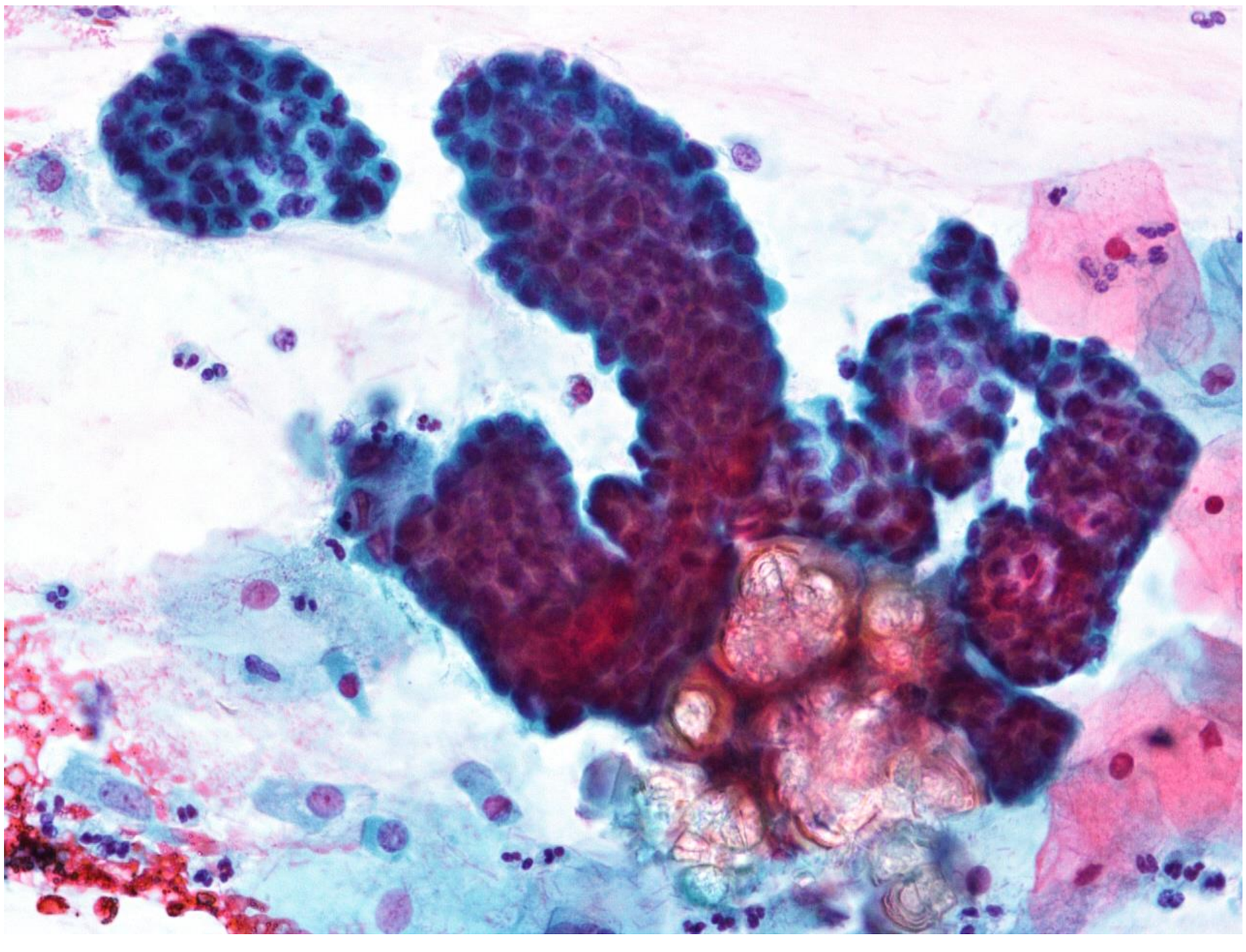


Fig. 2. Papanicolaou stain (PAP), x400

(continues on the next page)

Case Challenges!

2

A 48-year-old woman, day of cycle not reported (more than a month ago), regular cervical screening smear.

QUESTIONS

a) Describe what you see.

b) What does it represent?

c) What is its significance?

(continues on the next page)

Case Challenges!

2

A 48-year-old woman, day of cycle not reported (more than a month ago), regular cervical screening smear.

ANSWERS

a)

- rounded clusters of mildly atypical glandular cells
- scant cytoplasm
- mildly enlarged, round and oval nuclei with focal, mildly irregularly shaped nuclear membrane, accentuated granular chromatin structure, small nucleoli
- psammoma bodies

b) The cytomorphological picture corresponds to at least AGC (atypical glandular cells) due to mild cytological atypia of glandular cells, according to The Bethesda System (TBS) for Reporting Cervical Cytology. However, one might report cytomorphological changes of glandular cells as AGCN (atypical glandular cells, favour neoplastic) due to the presence of psammoma bodies.
Follow up: CT of the abdomen showed a cystic tumour in both ovaries with peritoneal deposits present. A histological biopsy of the omentum confirmed low-grade serous carcinoma, origin not determined, possible ovary.

c) After a given cytological report of at least AGC according to TBS, a colposcopic evaluation and tissue biopsy with histopathological examination is conducted in order to exclude or confirm a possible neoplastic process. Due to the presence of psammoma bodies and mild cytological atypia of glandular cells, low-grade serous carcinoma is considered most likely.

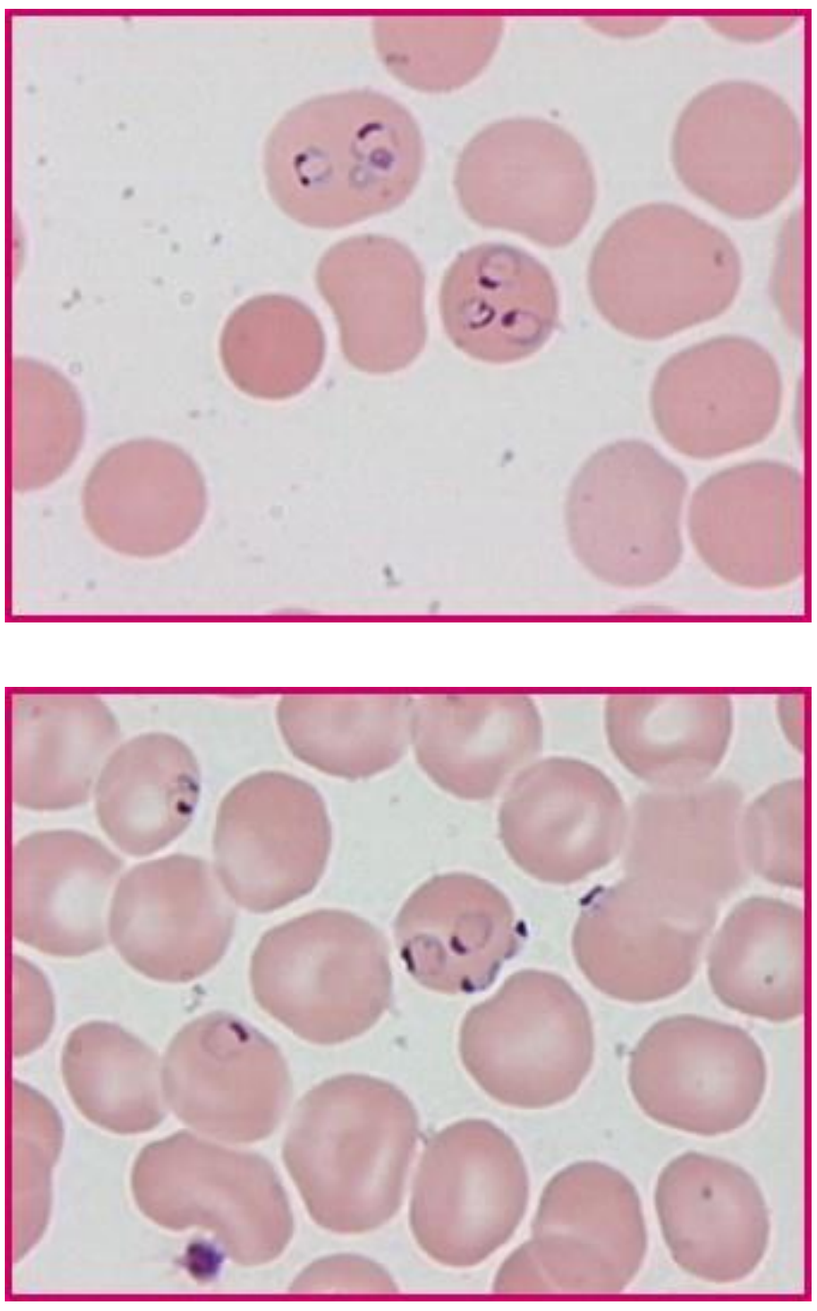
Comment:
Psammoma bodies are concentrically laminated calcifications. They are characteristic but not universal features not only of meningioma but also of papillary carcinoma of the thyroid gland and serous neoplasm of the female genital tract. They are found in other gynaecological neoplasms and metaplasia of the secondary Mullerian system.
Single case reports and small series have shown that the finding of psammoma bodies in a cervical smear raises the possibility of a diversity of co-existing pathologies, ranging from endometriosis or endosalpingiosis to benign or malignant neoplasms of the uterus or fallopian tube and benign, borderline or malignant neoplasms of the ovary or peritoneum.

Author of the case:
Damjana Cimerman
Residents and YEFCS Committee

Special thanks to Prof. Margareta Strojan Fležar, M.D., Ph.D., for her valuable comments

References:
Smith JH. Psammoma bodies in cervical smears: sifting the grains of sand. Cytopathology. 2007 Jun;18(3):140-2. doi: 10.1111/j.1365-2303.2007.00456.x. Erratum in: Cytopathology. 2007 Aug;18(4):272.

Trivial Facts of Cytopathology



Photos of Plasmodium malariae by courtesy of Assist Prof Irena Seili-Bekafigo, MD, PhD, Clinical Hospital Centre Rijeka, Croatia

Did you know that the Romanowsky stain dates back in 1891?

Dimitry Leonidovich Romanowsky, a Russian physician and doctor, originally devised the stain to identify Plasmodium, the causative agent of malaria disease, in peripheral blood smears. And indeed, some of the advantages of the Romanowsky stain are the enhanced cytoplasmatic detail and smear background.

Up until then saffron, indigo and carmine where used to stain tissues.

The Romanowsky technique was later on improved by William Boog Leishmann, James Homer Wright and Gustav Giemsa around the early 20th century. All known techniques used up to date!

Find out more in the article Pioneers of exfoliative cytology in the 19th century: the predecessors of George Papanicolaou, by Diamantis A, Magiorkinis E. Cytopathology. 2014. 25:215-224. DOI:10.1111/cyt.12074.

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Thank you for your time!
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The EFCS Newsletter

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