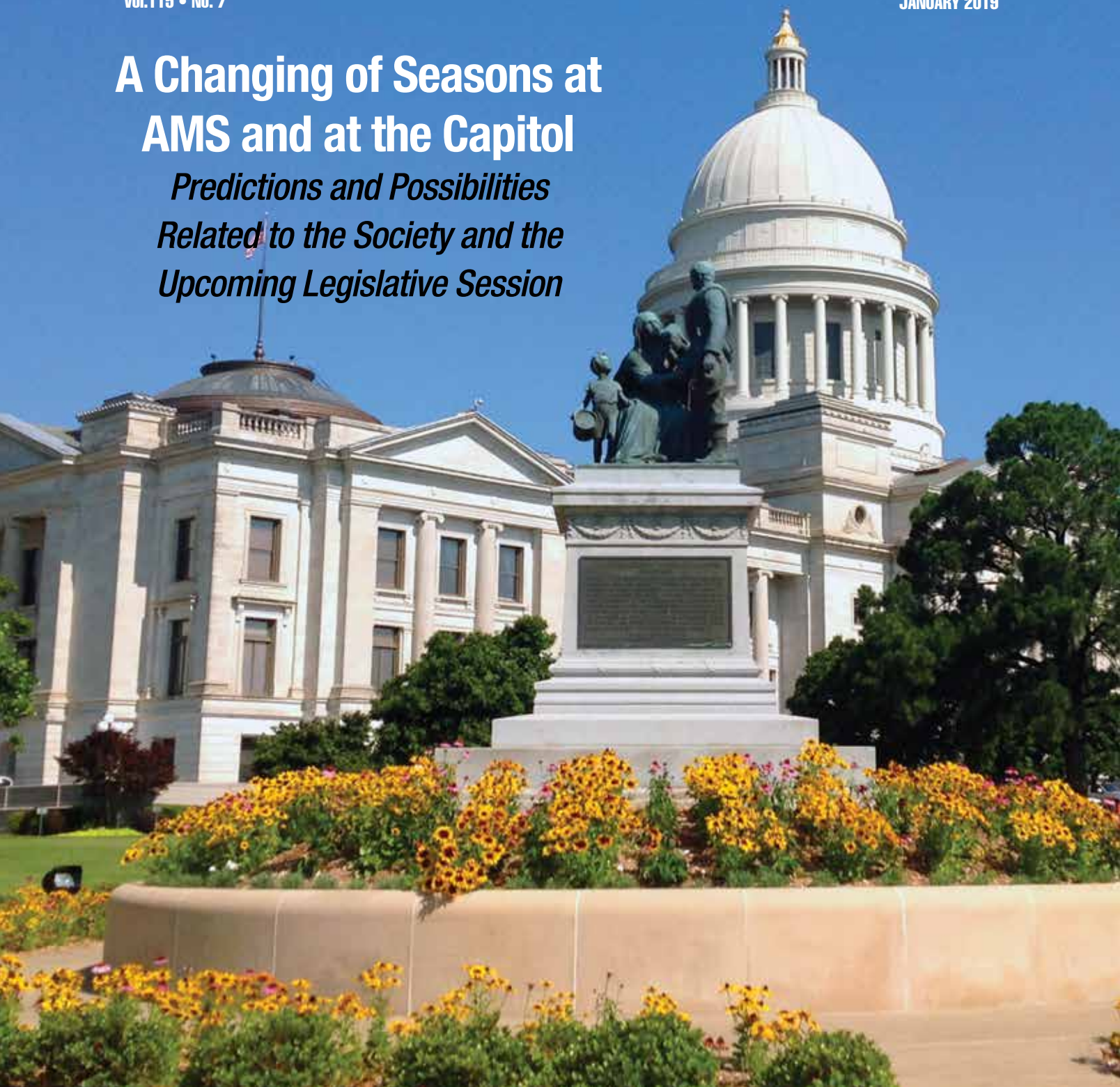
THE Journal
OF THE ARKANSAS MEDICAL SOCIETY
Vol.115 • No. 7
JANUARY 2019

A Changing of Seasons at AMS and at the Capitol

Predictions and Possibilities Related to the Society and the Upcoming Legislative Session



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by CASEY L. PENN

ON THE COVER

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Winner of the ASAE Excellence in Communications Award

THE Journal OF THE ARKANSAS MEDICAL SOCIETY

Volume 115 • Number 7 **January 2019**

Established 1890. Owned and edited by the Arkansas Medical Society and published under the direction of the Board of Trustees.

Advertising Information: Penny Henderson, (501) 224-8967 or penny@arkmed.org. #10 Corporate Hill Drive, Suite 300, Little Rock, AR 72205.

Postmaster: Send address changes to: The Journal of the Arkansas Medical Society, P.O. Box 55088, Little Rock, AR 72215-5088.

Subscription rate: $30.00 annually for domestic; $40.00, foreign. Single issue $3.00.

The Journal of the Arkansas Medical Society (ISNN 0004-1858) is published monthly, by the Arkansas Medical Society, #10 Corporate Hill Drive, Suite 300, Little Rock, AR 72205. (501) 224-8967.

Printed by The Ovid Bell Press Inc., Fulton, Missouri 65251. Periodicals postage is paid at Little Rock, AR, and at additional mailing offices.

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WHAT HAVE WE DONE FOR YOU LATELY?

Goodbye House of Delegates

DAVID WROTEN
EXECUTIVE VICE PRESIDENT

It was time. At the November meeting of the AMS House of Delegates, the House voted to abolish itself. It was a unanimous decision all perfectly carried out in conformity with bylaws requirements, a membership comment period, and plenty of opportunity for discussion. It represents a major change in governance of the AMS from an organizational standpoint, as well as from a practical one.

The HOD has served as the primary policy-making body of the AMS since the beginning of time. But as they say, all good things must come to an end.

Traditionally, the HOD was comprised of physician delegates elected by their local county medical societies. Representation in the HOD was proportional to the number of members in each county. They assembled once a year to debate and set policy for the organization, elect the officers, establish the membership dues, etc. The HOD elected the Board of Trustees, which meets quarterly and is charged with implementing the policies adopted by the HOD, operating the business side of the organization, and employing the staff. As county medical societies began to disappear, delegates stopped being elected. Despite several attempts to open the HOD to other physician organizations (think state specialty societies) and the general membership, attendance at the HOD meeting dwindled to a point where the only people present were past presidents and members of the Board of Trustees.

> *Now with the Board being able to set policy, you have four opportunities every year to bring issues to the Board's attention.*

The duties and responsibilities of the HOD are now in the hands of the Board of Trustees. The AMS joins a trend among state medical associations for a more nimble policy-making body. There are several advantages to this change in governance. The Board of Trustees meets quarterly, which means that discussion on big issues and policies can take place in a more timely manner rather than just once a year. Like the HOD, membership on the Board is proportional. The state is divided into 10 geographic districts, and each district has a minimum of two trustees with additional trustees allotted based on the number of members in each district. These district trustees are elected by the AMS members in each district rather than by a few delegates attending an annual meeting. Another change that will take place is that the general officers of the AMS (president-elect, treasurer, etc.) will now be elected by the general membership rather than by the limited number of physicians attending the annual meeting.

Why should you care? It means more opportunity for involvement. Here is an example. Let say that you believe the AMS should have a policy on the use of scribes. Previously, you could submit a resolution to the HOD, attend the meeting, and try to get the delegates to agree with you. Maybe you submit a proposed policy or maybe simply request that the organization develop one. Ultimately, you had one shot each year to make something happen. Now with the Board being able to set policy, you have four opportunities every year to bring issues to the Board's attention.

For most AMS members, this will not seem like a very big deal. You may be thinking that this change makes sense, but as with most organizations, change is often very slow and difficult. We don't like to change that with which we are comfortable. Discussions about doing away with the AMS House of Delegates have taken place intermittently for the past 20 years, but in the end, it was time. AMS

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by CASEY L. PENN

A Changing of Seasons at AMS and at the Capitol

Predictions and Possibilities Related to the Society and the Upcoming Legislative Session

"To everything (turn, turn, turn)

There is a season (turn, turn, turn)

And a time to every purpose, under heaven"

– Pete Seeger

Surrounded by the brilliant reds and golds of autumn at its peak, the Arkansas Medical Society settled into a new season during its fall – and final – meeting of the House of Delegates. From the rustic Red Apple Inn in Heber Springs, Speaker of the House Gene Shelby, MD, moderated the vote that immediately eliminated the policy making body that was established in 1875. The dissolution did not result from an impulse decision, but followed after years of analysis, discussion, and reflection by faithful attendees and, by proxy, the Society in full.

This change began during the 2017 AMS Annual Session when a committee was appointed to analyze the relevance of the House of Delegates. The committee was chaired by Omar Atiq, MD, and also included Drs. Shelby, Alan Wilson, Scott Cooper, and Steve Magie. At the 2018 Session, Dr. Atiq shared the committee's findings and recommendations, which included eliminating the House. After discussion and additional recommendations related to the transferring of House responsibilities, attending members voted to support the committee's recommendations, which were then sent to the Bylaws Committee to be formatted to share at the fall HOD meeting.

Moving Forward: HOD-Related Policy Changes

Prior to the vote, AMS Executive Vice President David Wroten outlined the HOD-associated changes in order to make sure those present understood both the modifications and the reasons leading up to the proposal. One of those reasons included a lack of participation. For the last several years, attendance at the HOD meetings has decreased to nearly just that of the members of the Board of Trustees.

With the vote that occurred on November 2, the responsibilities of the HOD were transferred to the Board of Trustees and the general membership, respectively. The Board will assume legislative and policy making duties, as well as responsibility for changes to the bylaws, and the general membership will oversee the election of AMS officers and AMA delegates. A nominating committee will remain in place to help the process along. However, moving forward, ballots that the Society sends out for district trustees will also include any relevant officer votes. Resolutions will be eliminated with the HOD, instead allowing members to vote on issues electronically.

While the House of Delegates is no more, occasions for networking remain in the form of an annual membership meeting. "The AMS annual session was tied to a House of Delegates meeting, but the bylaws committee felt, strongly, that members needed to continue to have an opportunity for all members of the Society to get together," said Wroten. "With respect to the annual membership meeting, we're going to have to put some thought into how to approach that. The true goal is to engage the membership, and to find out if is it valuable to get all members to come to a central location to have a meeting. If so, what do we do with it?"

Wroten explained how various officers will be elected and explained on procedures related to AMA delegates, amendments, membership comments, and more. "If a general member has an issue that they want addressed, they can still do what they typically do – call us, and we will bring it to the Board's attention," he reassured. For more on changes and new policies, contact Wroten at (501) 224-8967.

A New Season at the Capitol

Following the historic vote, AMS Director of Governmental Affairs Scott Smith discussed the possibilities of *another* new season coming up, the 2019 session of the Arkansas General Assembly. In laying out expected battles to the group, Smith facilitated a focus group with members on issues like tort reform, scope of practice/patient safety/licensure, health insurance, hospital relations, and public health.

Now that tort reform has been struck from the ballot by the Arkansas Supreme Court, there will be discussion of next steps toward meaningful tort reform through legislative measures like attorney fee caps, non-economic damage caps, punitive damage caps, and addressing rules of the court.

> Continued on page 152.

Scope of practice issues will be back again, from groups with plenty of representation. Advanced practice nurses, pharmacists, athletic trainers, and others will be asking for more independence from physician supervision. AMS has fought these issues repeatedly, and will continue to do so with support from its members. "We understand that their organizations are there to advance their profession," Smith has said, "but we believe physicians have the most comprehensive training suited to provide the highest quality of care to patients."

Issues related to hospital relations may center on accountability, patient right-to-know, and peer review fairness, while public health issues may include proposed legislation for PDMP "safe-harbor," medical records clarification, exemptions, and more. Other issues Smith expects to track include medication-assisted treatment, health insurance issues, and telemedicine.

"Teladoc will be back again. They want to be able to use the telephone to establish the patient-physician relationship," said Smith. "In addition, the administration may be looking to add amendments to tighten up current opioid legislation; these will likely include shortening up days for new prescriptions and requiring more opioid-related continuing education."

In the past, AMS worked tirelessly with Sen. Cecile Bledsoe and Rep. Deborah Ferguson on the Telemedicine Act, passed in 2015 and amended in 2017, which helps protect the patient-physician relationship. On this and so many other issues, the AMS legislative team will continue to fight. In addition to Smith and Wroten, AMS Legal Counsel members Mike Mitchell, David Ivers, and others will be hard at work at the Capitol on behalf of AMS membership. With them, members of the AMS staff and Board of Trustees will be there as needed. The Society may call on you for help and asks you to be ready. (Visit arkmed.org to learn how to contact your legislator).

Laura Haywood

"Successful AMS legislative advocacy is directly tied to the support and participation of members statewide," said Smith. "Arkansas physicians have, historically, been good at keeping abreast of the issues before the legislative session, looking for our alerts and – most importantly – responding when asked to contact legislators. With a larger number of issues already being pushed by other groups, I expect the need for active physician participation to be even greater this session than in past sessions."

Doctor of the Day

Being a presence and making your voice heard is as important as ever, and one way to do that is by participating in the Society's long-running Doctor of the Day program, coordinated by Laura Hawkins. "This has become an expected part of each general assembly. Legislators expect and appreciate it, and physicians gain valuable insight from being at the Capitol," said Hawkins.

Rep. Deborah Ferguson and Rep. Steve Magie, MD, have encouraged doctors who serve in this way to make full use of their time at the Capital. As legislators, they suggest participants get out of the infirmary and network with legislators. For more information about Doctor of the Day, call Hawkins at (501) 224-8967.

Membership and Moving Forward

The Society has a new employee. Laura Haywood, membership and communications specialist, will be responsible for increasing membership engagement and longevity, as well as communicating the value that AMS brings to its members. "With Laura's help, and your help, we want to reach the physicians that we're not reaching," said Wroten in introduction of Haywood and a discussion of membership and participation.

At the Board of Trustees November meeting, Haywood encouraged them to engage with the Arkansas Medical Society's social media sites as there would be more posts and interactions in the future on those pages. She also facilitated a discussion of the most important AMS benefits and how best to share those with prospective members. Top benefits of AMS membership discussed included:

- **Advocacy** – Legislative, Local, State, National for MDs, DOs on important issues.
- **Networking** – Maintaining collegiality and building relationships with all physicians.
- **Educational Opportunities** for physicians and office staff.
- **Communication** on federal requirements and with payers.

Wroten pointed out the monetary value of AMS membership. "Medical Society dues are $400. You know the last time they were raised? Thirty years ago. The Society has increased membership and has been able to remain a lean organization. To keep that up, we need to boost participation."

But while AMS brings a lot of value for the cost of members, there are also challenges of maintaining membership and recruiting new members. These challenges included specialty-specific devotions, lack of time, lack of interest/apathy, and a lack of true understanding of the role and the value of AMS membership.

Haywood and the AMS staff will continue to work on membership appeal and strategy, and welcome any suggestions that you may have. You can contact Laura Haywood at lhaywood@arkmed.org.

While the leaves of the final fall meeting have long since blown away and winter has settled in, the promise of a lively spring is close at hand. Likewise, the HOD may be gone, but rest assured, your Society remains healthy, committed to further growth, and dedicated in its representation of members like you.

Have you told a physician colleague lately about the Arkansas Medical Society?

If you'd like to share what the Arkansas Medical Society means to you, call (501) 224-8967 or send a brief, written paragraph to casey@pennwords.com, for possible use in a future issue of The Journal (and please indicate your willingness to speak on video) or for use on social media. AMS

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CASE STUDY

Elevated Carcinoembryonic Antigen (CEA) Levels in Colorectal Cancer From Ischemic Colitis

Sai Prasad Desikan[1]; Anthony Kunnumpurath, MD[2]; Raman Desikan, MD[3]

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[2,3]*White River Health System, Batesville, Ark.*

Abstract

CEA is widely used as a tumor marker in colorectal cancer. CEA is of limited use in detection of colorectal cancer; however serial CEA measurements are very useful in detecting recurrence of colorectal cancer.[1] This may result in early detection and resection of metastatic disease, which can result in extended survival, [five-year survival (26-40%)] and cure of patients.[2-4] Elevated CEA levels observed during serial CEA determinations prompted imaging studies, which did not reveal any evidence of local recurrence or metastatic disease in our patient. Colonoscopic evaluation done 12 months from surgery revealed ischemic colitis. CEA levels normalized 18 months from surgery. Patient had no symptoms from ischemic colitis other than increased bleeding after colonoscopy.

Case Report

A 72-year-old Caucasian male with history of colonic polyposis underwent colonoscopy after an episode of rectal bleeding. This revealed malignant-appearing mass in the rectum 7 cms from anal verge. Biopsy revealed tubulo-villous polyp with high-grade dysplasia. Trans anal excision of the mass revealed adenocarcinoma invasive focally into muscularis propria in addition to polyp (Fig 1). Prior radiation to pelvis precluded consolidative radiation. Laparoscopic anoperineal resection was complicated on account of adhesions from pelvic radiation. He had significant blood loss requiring eight units of packed red cells, FFP, and platelets. His evaluation in the office five months from surgery revealed well-healed perineal wound and terminal colostomy. Exam did not reveal hepatomegaly or masses. CT scan did not reveal any pelvic mass or metastatic disease. CEA level was elevated at 85ng/ml. He was evaluated 11 months after surgery; on this occasion, he had further elevation of CEA to 312ng/ml. Physical evaluation and CT scans showed no evidence of local recurrence or metastasis. PET/CT and MRI of pelvis done one month later showed no evidence of disease. Colonoscopy was performed through the stoma 12 months from surgery revealed ischemic colitis, confirmed by pathologic evaluation (Fig 2.) extending from transverse colon to descending colon. Patient did not have any symptoms from ischemic colitis other than excessive bleeding after colonoscopy. Further evaluations have not revealed any evidence of disease and CEA level was normal 18 months from surgery (Fig 3).

Discussion

Ischemic colitis is the most common form of ischemic injury to the gastrointestinal tract. A plethora of conditions predispose to colonic ischemia. Clinically, ischemic colitis can be classified into gangrenous variety, more often associated with vascular occlusion and non-gangrenous form. Non-gangrenous colitis could be transient and reversible, or chronic. Chronic forms can present as ischemic strictures or chronic segmental colitis. This is the first report of ischemic colitis causing elevated CEA level in colorectal cancer.[5] Elevated CEA levels have been reported in four patients with ischemic colitis in Japan; two patients with acute gangrenous colitis and two patients with chronic colitis. Of the two patients with chronic form, one patient had chronic segmental colitis and the other had ischemic stricture. CEA levels normalized six days and 16 days

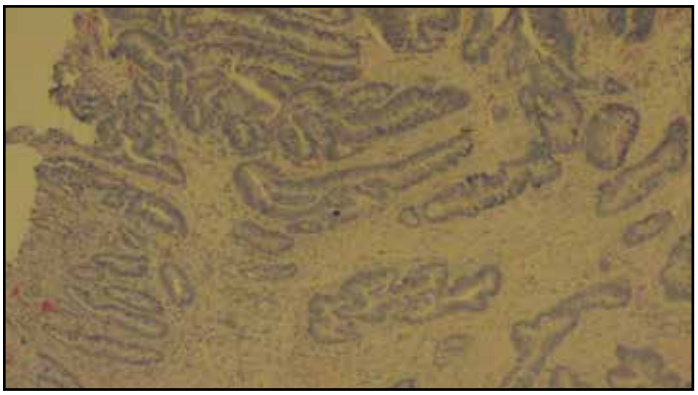

Figure 1. Invasive adenocarcinoma, well to moderately differentiated. Neoplastic glands infiltrating into submucosal fibroconnective tissue. x40, original magnification.

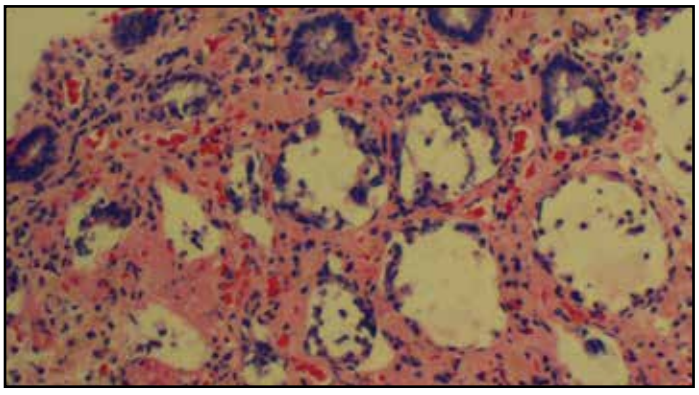

Figure 2. Ischemic colitis. Necrotic mucosa with withered/ degenerate glands, surface acute inflammatory exudate, and hyalinized lamina propria stroma. x40, original magnification.

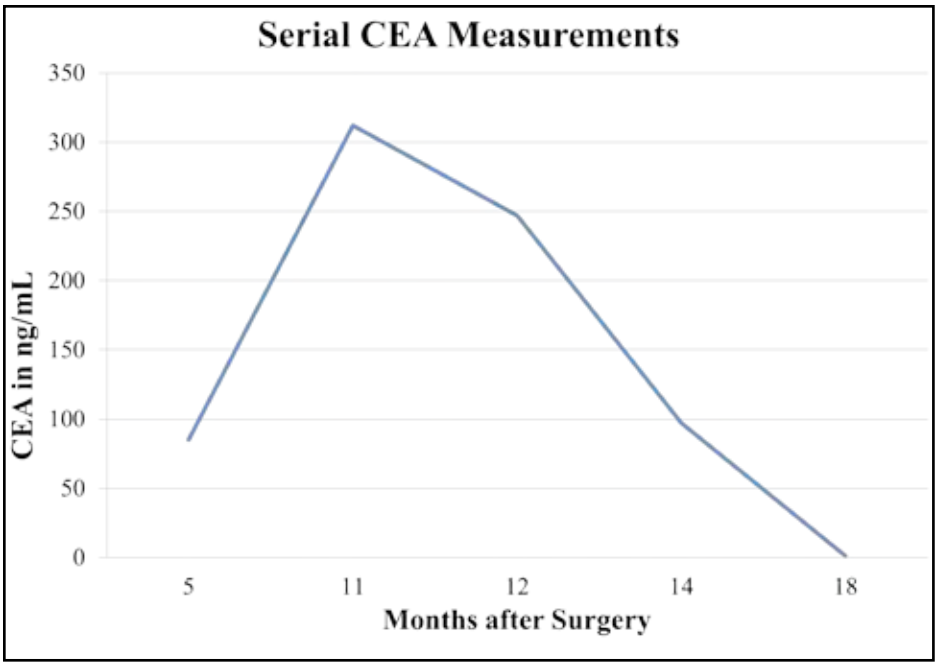

Figure 3. Serial CEA measurements in ng/mL

after surgery in the two patients with gangrenous colitis. Time to normalization was six months in the patient with chronic segmental colitis. Our patient with chronic segmental colitis normalized his CEA levels 18 months from surgery.[6-8] The CEA level recorded in our patient was much higher compared with the Japanese patient. Incidence of ischemic colitis is often underestimated on account of mild and transient symptoms. Our patient did not report any symptoms before his colonoscopy; bleeding was more prominent after the procedure.

Ischemic colitis is rare after colorectal surgery and more common after aortic surgery. Factors predisposing to ischemic colitis in this population include use of vasopressors and increased transfusion (> 7 units PRBC). Pelvic radiation has been reported to predispose to ischemic colitis after aortic surgery. Preoperative inferior mesenteric artery patency has also shown to be an important factor predisposing to IC after aortic surgery.[9, 10] Factors thought to predispose to ischemic colitis in our patient includes age (>65) (90% of IC occurs in this age group), hypertension, increased transfusion requirement, and prior pelvic radiation. Inferior mesenteric artery was noted to be patent on CT angiogram in our patient.

Treatment of ischemic colitis depends on severity of presentation. Most cases of ischemic colitis are transient and reversible and do not require specific therapy. Acute presentation requires supportive care including intravenous fluids, antibiotics, and bowel rest. Parenteral nutrition may be necessary for patients requiring bowel rest. Patients with bowel infarction and perforation require emergent surgery. Most patients with acute ischemic colitis show resolution of symptoms in 24 to 48 hours and complete resolution in two weeks. Some of the patients with severe ischemic colitis may develop persistent colitis or ischemic stricture. Topical steroids may have a role in therapy of chronic colitis. Symptomatic patients with segmental colitis and ischemic colitis can undergo curative segmental resection. Asymptomatic patients with strictures should be observed since some of these patients show resolution in 12-to-24 months.[5]

CEA is a useful tumor marker in colorectal malignancy; however, it is elevated in a variety of benign diseases such as alcoholic hepatitis, cirrhosis, pancreatitis, biliary obstruction, colitis, colonic polyposis, and smokers. Elevations are usually mild and rarely greater than 10. Greater levels have been reported occasionally.[11] Ischemic colitis is a very rare cause of elevated CEA; our patient was predisposed on account of multiple factors stated above. CEA was significantly elevated prompting imaging studies to rule out recurrent disease in our patient. This case further illustrates the fact that elevated tumor markers alone should not be the basis for initiation or changing the therapy in colorectal malignancy unless supported by imaging, colonoscopy, and pathologic studies.

***Note** The authors would like to acknowledge Perkins Mukunyadzi, MD for his contribution of pathology images.*

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A CLOSER LOOK AT QUALITY

ANGELS: Arkansas' Telemedical Approach to High-Risk Obstetrics

CURTIS LOWERY, MD

Prior to 2003, Arkansas women could only access specialty obstetrical care in the state's largest urban centers. Those living in rural areas did not have easy access to care, contributing to Arkansas' high rates of infant mortality, and maternal morbidity and mortality.

Forty-four percent of Arkansans live in rural areas compared to the overall U.S. rate of 19 percent.[1] Seventy-three of the state's 75 counties are designated as either full or partial medically underserved areas.[2] Arkansas has one of the highest rates of poverty in the nation. It ranks as one of the worst states for women's health, and has higher-than-average rates of infant mortality and low birthweight deliveries.[1,3]

Lacking access to specialty expertise and fearing possible liabilities of treating high-risk pregnancies, Arkansas' rural family practitioners and obstetricians often referred such patients to urban centers staffed with maternal-fetal medicine and genetic specialists. This solution resulted in rural doctors losing many of their patients and high-risk women having to travel for needed care. Too often, these women could not or did not seek the specialty care they needed.

Arkansas Medicaid lacked the clinical resources to meet increased demand for high-risk pregnancy care. In 2003, leaders at the University of Arkansas for Medical Sciences (UAMS), Arkansas Medicaid and the Arkansas Medical Society crafted a successful solution for the state: the Antenatal and Neonatal Guidelines, Education and Learning System (ANGELS), a high-risk obstetrical telemedicine program. Arkansas Medicaid appropriated funds to create ANGELS to extend maternal-fetal medicine and genetic expertise to Medicaid beneficiaries experiencing high-risk pregnancies and their rural providers. By bringing expertise to these providers, local co-management of high-risk pregnancies became possible.

The ANGELS team, including maternal-fetal medicine specialists, genetic counselors, radiologists, sonographers, neonatologists, pediatric subspecialists, dietitians, social workers and nurses, is available to women and providers statewide through telemedicine. The program has united hospitals with the collective goal of better managing Arkansas' high-risk pregnancies. ANGELS telemedicine consults are offered at 57 health department sites and 23 hospitals, clinics and regional centers statewide.

ANGELS is supported by a 24-hour, registered-nurse-staffed call center providing appointment assistance, evidence-based guidance for patients and providers and emergency transport arrangements for women needing immediate care. Additionally, ANGELS collaborates with Arkansas' physicians to develop and publish evidence-based obstetrical and neonatal guidelines.

Other ANGELS initiatives include:

- Neonatal Resuscitation Program, an evidence-based approach to newborn resuscitation education for health care professionals
- Fetal monitoring courses using the Association of Women's Health, Obstetric and Neonatal Nurses' approved curriculum
- STABLE (sugar/safe care, temperature, airway, blood pressure, lab and emotional support) training for neonatal critical-care nurses to establish continuity of care while stabilizing distressed newborns
- Following Baby Back Home care-management and home visiting for families of high-risk infants, following discharge from a

neonatal intensive care unit (NICU)
- Obstetrical Simulation Program drills at rural delivering hospitals using a high-fidelity mannequin programmed to simulate obstetrical emergencies
- Newborn screening that provides physician consultations, education and secondary testing support for expanded newborn genetic testing
- Statewide infant-safe-sleep education and outreach program for families
- Arkansas' Perinatal Outcomes Workgroup using Education and Research (POWER), an ANGELS initiative, was created to implement evidence-based practices in Arkansas' delivering hospitals. POWER's goals are to reduce maternal morbidity and mortality, while improving the efficiency and quality of care.

The United States has the highest rate of maternal mortality in the developed world,[4] with a maternal mortality rate of 17.3 per 100,000 live births per year in 2013.[5] Additionally, severe maternal morbidity has steadily increased nationwide to a rate of 144 per 10,000.[6]

POWER is currently focused on implementing maternal safety bundles for hypertensive emergencies and postpartum hemorrhage. More than half of Arkansas' 40 delivering hospitals have implemented safety bundles. At the request of Arkansas Medicaid, the AFMC partners with POWER to educate health care professionals about post-birth warning signs in new mothers. This builds awareness of best care practices and may help reduce maternal morbidity and mortality. As of June 2018, AFMC has extended this education to nine Arkansas hospitals and received enthusiastic reviews.

Arkansas remains one of only 15 states without a maternal mortality review (MMR) board. To further improve the state's standard of maternal care, ANGELS will support MMR board development as part of a multiagency group including other UAMS departments and the Arkansas Department of Health. ANGELS will also expand its telemedicine model to labor and delivery units statewide.

The ANGELS evaluation and research team has recognized a general continuation in improved birth outcomes for Arkansas' Medicaid-beneficiary population since ANGELS implementation. Improvements include:
- Decreases in both neonatal and post-neonatal deaths
- An increased percentage of deliveries in NICU hospitals
- Significant decrease in the rate of postpartum complications in Medicaid deliveries in the two years following ANGELS' implementation; maintaining the lower rate for six years before increasing in 2014

In 2017, ANGELS' call center managed 130,507 calls, had 38,364 calls to their appointment center and facilitated 501 maternal transports. In 2015, ANGELS diverted emergency visits that represented $1.2 million in cost savings. ANGELS has not only improved clinical outcomes, it has provided a means to promote and manage perinatal regionalization to ensure that complicated deliveries are routed to the best-equipped hospitals.

The Agency for Healthcare Research and Quality designated ANGELS as one of five Medicaid programs in the nation that should serve as a model of patient care and outreach. More than 30 entities, from the African Congo to New York, have visited ANGELS to receive hands-on training and customized advice to replicate ANGELS among their own patient and provider populations.

ANGELS' unique collaboration will continue to be a model for institutions that want to implement telemedicine and women's health disparity solutions. For more information about ANGELS, call 501-526-7425 or 866-273-3835. ▲

Dr. Lowery is chair, UAMS Department of Obstetrics and Gynecology and director, ANGELS and Center for Distance Health.

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Alcohol and Substance Use in Older Adults

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Abstract

Alcohol and substance use patterns are often overlooked in older adults in the clinic; however, the rates of use are increasing as baby boomers are aging. Older adults are, unwittingly, more vulnerable to a number of physical and mental health problems associated with the use of alcohol in particular – regardless of whether they meet criteria for a diagnosable disorder. Further, there is little common understanding regarding the levels of use that are associated with increased health risks. This article is intended to increase awareness of these risks and vulnerabilities and the need for increased clinical attention to them.

Alcohol and Substance Use in Older Adults

Health care providers tend to overlook substance use disorders among older people, mistaking the symptoms for those of dementia, depression, or other problems of aging. Historically, older adults have not demonstrated high rates of alcohol or other drug use when compared with younger adults. However, evidence suggests that substance use among older adults has been under-identified, and the prevalence rates of substance use disorder among baby boomers is higher than previous cohorts and continuing to grow.[1]

The 2017 report of the National Epidemiologic Survey on Alcohol indicates that between 2002 and 2013 there was a 49.4% increase in alcohol use disorder – considering it a "public health crisis."[2] Older adults were among the subgroups with the greatest increase. The aims of this article are to clarify the health risks associated with substance use – particularly in older adults – and encourage increased attention to appropriate assessment, education, and treatment.

DSM-5 Substance Related Disorders

The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5)[3] includes redefined substance-related disorders under the following classifications: substance use disorder, substance intoxication, substance withdrawal, and other substance-induced disorders. Substance use disorders are by far the most common. **Table 1** outlines the diagnostic criteria.

It is noteworthy that the diagnostic criteria for a substance use disorder can be made simply on the basis that an individual is distressed by a pattern of using a substance in larger amounts or over a longer period than intended, and having a persistent desire or unsuccessful efforts to cut down or control use – regardless of impairment of functioning.

Other substance use disorders include intoxication and withdrawal (as a historically defined) and any cognitive, behavioral, or emotional disorder that is thought to be the direct result of substance use.

Alcohol Use

With regard to alcohol in particular, recent estimates suggest that 29% of adults will have an alcohol use disorder (AUD) in their lifetime. While the frequency and intensity of alcohol use tends to decrease with advancing age, older adults are particularly vulnerable to a number of complications associated with continued use. Specifically, withdrawal states tend to be more severe in older adults, especially those who are also dependent on other drugs (e.g. benzodiaz-

Table 1. DSM-5 Criteria for Substance Use Disorder
A problematic pattern of substance use leading to clinically significant impairment or distress, as manifested by at least two of the following:
➡ Substance is often taken in larger amounts or over a longer period than was intended.
➡ There is a persistent desire or unsuccessful efforts to cut down or control substance use.
➡ A great deal of time is spent in activities necessary to obtain substance, use substance, or recover from its effects.
➡ Craving, or a strong desire or urge to use substance.
➡ Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home.
➡ Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of substance.
➡ Important social, occupational, or recreational activities are given up or reduced.
➡ Recurrent substance use in situations in which it is physically hazardous.
➡ Substance use is continued despite knowledge of its having caused or exacerbated persistent or recurrent physical or psychological problems.
➡ Tolerance
➡ Withdrawal

epines and sedative hypnotics) and those who have had prior alcohol withdrawal experiences.

Less than 10% of individuals in alcohol withdrawal ever demonstrate withdrawal delirium or withdrawal seizures. Moreover, confusion and changes in consciousness are not core criteria for alcohol withdrawal, though alcohol withdrawal delirium may occur. Older adults are likely more vulnerable to withdrawal delirium, which typically presents in the context of other clinically relevant medical conditions.

A particular vulnerability of older adults is that unintended alcohol withdrawal in hospitalized patients for whom a diagnosis of AUD has been overlooked can add to the risks and costs of hospitalization.

General risks of alcohol use in later life include the following: (1) increased brain susceptibility to the depressant effects of alcohol, (2) decreased rates of liver metabolism of alcohol and other substances, (3) decreased percentages of body water and lean body mass, and (4) diminished awareness.[1] All of these factors may result in more severe intoxication and subsequent problems at lower levels of consumption – especially when associated with other medical complications.

It should be noted that while most drinkers sometimes consume enough alcohol to feel intoxicated, only a minority (less than 20%) ever develop AUD.[3] Therefore, drinking, even daily, in low doses and occasional intoxication do not, by themselves, warrant a clinical diagnosis. However, it is also true that many alcohol users who do not meet diagnostic criteria for AUD unwittingly drink more than is recommended by the CDC to minimize health risks. CDC defines excessive drinking as "heavy drinking and binge drinking."

Table 2 outlines the CDC's definitions of light, moderate, and heavy drinking, as well as what constitutes a drink.

Table 2. CDC's Definitions for Alcohol Use[4]
Light Drinking
< 1 drink per day for women
< 2 drinks per day for men
Moderate Drinking:
1 drink per day for women
2 drinks per day for men
Heavy Drinking:
8 or more drinks per week for women
15 or more drinks per week for men
What is a Drink?
12 oz of beer
5 oz of wine
1.5 oz of 80 proof (40% alcohol) liquor

For the majority of diseases linked to alcohol, the risks increase with increasing consumption – without a threshold under which there is no increased risk. **Table 3** identifies a broad variety of health risks associated with excessive alcohol use.

A variety of cancers are associated with excessive alcohol use. These include: liver, mouth, throat, larynx, esophagus, breast, and colon. The risk varies by type of cancer, and the greatest risks are associated with moderate to heavy use. Some risk persists at even low levels of use.[6]

Safety risks associated with excessive alcohol use include: MVAs, falls, drowning, burns, firearm injuries, unsafe sex, domestic violence, homicide, and suicide. Additional health risks include: (1) poor nutrition and associated vitamin deficiencies, (2) poor medication adherence resulting in difficult management of all medical conditions, and (3) diminished healthcare utilization.[3]

In the recent past there has been a body of research interpreted to suggest that a number of positive health outcomes are associated with low-volume alcohol use, e.g. diminished mortality due to heart disease. However, a recent systematic

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Table 3. Health Risks Associated with Excessive Use of Alcohol[5]
Hypertension
Stroke
Cardiomyopathy
Cirrhosis
Pancreatitis
Brain Atrophy
Hypogonadism With Osteoporosis
Sexual Dysfunction
Gastroesophageal Reflux
Esophagitis
Peptic Ulcer
Seizures
Arrhythmias
Diabetes Mellitus
Hiv
Cancer

review and meta-regression analysis, adjusting for "abstainer bias and quality-related study characteristics," found no significant reduction in all-cause mortality risk for low-volume drinkers (<1 drink per day). By *abstainer bias* is meant that previous studies included subgroups of persons who had severe medical illnesses that resulted in abstention – biasing the results towards increased mortality among abstainers.[7]

With regard to the cognitive effects of alcohol, it is well-known that alcohol is a neurotoxin. Brain changes include atrophy of the cerebral cortex, reduced white matter volume, enlarged ventricles, and atrophy of subcortical structures including the hypothalamus and cerebellum. The frontal lobes, limbic system, and cerebellum appear to be particularly vulnerable, with changes producing abnormalities in the frontotemporal and basal ganglia circuits.

Alcohol is a central nervous system depressant with effects like those of tranquilizing and hypnotic drugs. Alcohol abuse is frequently comorbid with abuse of other substances. Effects vary with factors such as duration and quantity of use, premorbid nutritional status, other substances used, and underlying neuropathology.

While cerebral atrophy is commonly seen, it is not a reliable predictor of cognitive dysfunction. Still, commonly seen cognitive deficits with heavy use include diminished: executive functioning, psychomotor speed, and complex visual spatial abilities. Memory deficits are common, but far from universal. Language and arithmetic abilities remain relatively unimpaired. Significant improvements are often seen within the first few weeks and months of abstinence following heavy use. However, age is a limiting factor. Older adults improve to some extent, but more slowly. Many remain relatively impaired.

Alcohol-related dementia involves widespread cognitive deterioration, including memory and executive dysfunction. Behavioral dysfunction is often the result of frontal lobe pathology. By definition, activities of daily living are impaired.

Wernicke–Korsakoff syndrome is a serious risk for very heavy alcohol users. Wernicke's encephalopathy (delirium) is directly associated with thiamine deficiency and usually follows a bout of very heavy use – at least two weeks. It may be exacerbated by alcohol withdrawal delirium. If treated promptly in the acute stage with thiamine, the syndrome can be ameliorated. However, 80% of those with Wernicke's will experience residual effects known as Korsakoff syndrome, which usually leads to persisting dementia. This persisting dementia is distinct from the alcohol dementia of chronic abuse without history of Wernicke's.[8]

In addition to the physical and cognitive effects of heavy drinking, there are emotional and social effects. Most mental disorders, including major depressive disorder, have consistent associations with alcohol use.

Use of Other Substances

Though older adults tend to reduce their alcohol use as they age, alcohol remains the most commonly used substance. However, the rates of use of illicit substances doubled between 2002 and 2012 among 50 to 65-year-olds. Cannabis use by older adults is considerably more prevalent than other drugs. Prescription medication misuse is increasing.

2.9 million adults aged 50+ reported nonmedical use of psychotherapeutic medications in 2012. 1.4% of adults aged 50+ had used prescription opioids non-medically in the last year – higher than sedatives, tranquilizers, and stimulants (all <1%). Estimates of prescription medication misuse among older women average 11%. Older females are prescribed benzodiazepines and other psychoactive medications 37% more often than men, and so, older females are more likely to abuse prescription drugs. Prescription medication misuse is often complicated by simultaneous alcohol use and by the fact that older adults are vulnerable to confusing their medications and instructions for dosing.[1]

In summary, the risks of alcohol and substance use among older adults are substantial, but often minimized. Greater awareness and vigilance among health care providers is warranted.

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A Review of Juvenile Idiopathic Arthritis for the General Practitioner

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Introduction

Juvenile Idiopathic Arthritis (JIA) is defined as chronic arthritis persisting six weeks or longer with onset before the age of 16 years.[1]This was previously known as juvenile chronic arthritis or juvenile rheumatoid arthritis. The terminology has been replaced by JIA to underscore the fact that arthritis in childhood is a distinct disease and differs from adult-onset rheumatoid arthritis.

The pathogenesis and etiology of JIA are unclear but thought to be due to multifactorial interactions among genetic factors, immune mechanisms, and environmental exposures. Most of the genetic predisposition to JIA is determined by the major histocompatibility complex loci. Several potential pathogens have been proposed but none have been definitely shown to be casual.[2]

The estimated incidence and prevalence of JIA in the U.S. is approximately 14 per 100,000 children (95% confidence interval: 10–18) and 113 per 100,000 (95% confidence interval: 55–155), respectively.[3] However, to care for these patients, there are <300 practicing pediatric rheumatologists in the U.S. and only two pediatric rheumatologists in Arkansas.[4] The shortage of board-certified pediatric rheumatologists has made it necessary for primary care physicians to assume the care of many children with JIA and other rheumatologic diseases. Therefore, it is important for these physicians to be familiar with the clinical presentation and evaluation of children with JIA as they are likely to encounter these children in their practice.

This article provides an update on identification of JIA, management strategies, and potential complications of the disease.

Classification of JIA

The International League of Associations for Rheumatology classification (ILAR) categorizes JIA into seven subtypes based on the number of joints involved, extra-articular features, and serology identified in the first six months of disease presentation.[1] The features of each type are summarized in Table 1.

Clinical Features

JIA is a clinical diagnosis and there is no definitive diagnostic test. Exclusion of other causes of arthritis such as infections, malignancy, trauma, reactive arthritis, and connective tissue diseases such as systemic lupus erythematosus, is critical before making a diagnosis of JIA.[1, 2, 5]

Clinical features that are suggestive of JIA include presence of morning stiffness for > 15 minutes with improvement after activity, stiffness after prolonged periods of inactivity, and decreased range of motion of the joints. It is important to recognize that toddlers may not present with classic features of arthritis. Parents often describe that the child is fussy in the morning or refusal to use certain extremities. Fever, malaise, weight loss, night sweats, bone or joint pain, generalized pain, refractory or unremitting pain, nighttime pain should raise concern about infection or malignancy, and a work-up for these conditions must be performed immediately.

All joints must be examined for the presence of arthritis (i.e, swelling, warmth, restricted range of motion, or tenderness with range of motion). On careful observation of the child, preferential use of certain extremities may be noted. Signs of chronic arthritis include the presence of muscle atrophy due to disuse, bony overgrowth due to hyperemia of the area, leg length discrepancy, and micrognathia or retrognathia due to temporomandibular joint involvement.[1, 2, 5]Documentation of the number of joints involved is important for categorizing type of arthritis.[1]

Enthesitis-related arthritis is more commonly seen in males and generally presents with axial involvement of the spine or sacroiliac joints and "enthesitis" or inflammation at the sites at which tendons or ligaments insert onto bone. Most commonly involved areas include the achilles tendon, greater trochanter, metatarsal heads, and planter fascia insertion on the feet. Nail pitting, psoriasis, dactylitis, or "sausage digits" are suggestive of psoriatic arthritis.

Uveitis or inflammation of the eyes in children with JIA is often asymptomatic and hence children with JIA must be regularly screened for uveitis by an ophthalmologist. The American Academy of Pediatrics has published guidelines on the frequency of ophthalmological examinations based on child's age of diagnosis and ANA positivity.[6,7] These recommendations are summarized in Table 2.

Systemic-onset JIA

The clinical presentation of systemic-onset JIA (SoJIA) differs remarkably from other categories of JIA. The typical presentation is daily

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Table 1: Categories of JIA

ILAR Category	Definition
Systemic-onset JIA (SoJIA)	» Arthritis and fever (≥2 weeks, documented quotidian for at least 3 days) PLUS ≥ 1 of the following: • Evanescent erythematous rash • Generalized lymphadenopathy • Hepatosplenomegaly • Serositis
Oligoarthritis (OJIA)	» Arthritis of ≤4 joints during the first 6 months » 2 subtypes are identified: • Persistent OJIA affecting < 4 joints during the first 6 months of disease • Extended OJIA, affecting a total of >4 joints after the first 6 months of disease
Polyarticular RF-negative	» Arthritis ≥5 joints during the first 6 months of disease and RF-negative
Polyarticular RF-positive	» Arthritis ≥5 joints during the first 6 months of disease and RF-positive
Enthesitis-related Arthritis (ERA)	» Arthritis *and* enthesitis OR » Arthritis *or* enthesitis PLUS TWO of the following: • Sacroiliac joint tenderness or inflammatory lumbosacral pain • Positive HLA-B27 antigen • Onset of arthritis in a male >age 6 years • Acute anterior uveitis • History of ankylosing spondylitis, ERA, with inflammatory bowel disease, reactive arthritis, or acute anterior uveitis in first-degree relative
Psoriatic arthritis	» Arthritis and psoriasis OR » Arthritis PLUS TWO of the following: • Dactylitis • Nail pitting or onycholysis • Psoriasis in a first-degree relative
Undifferentiated arthritis	Arthritis that fulfills criteria for no category or for ≥2 categories

(or quotidian) intermittent fever, with temperatures as high as 102.2 to 104°F (39-40°C), with or without classic evanescent (transient) salmon-pink, macular rash. Other features include lymphadenopathy, hepatosplenomegaly, and serositis (such as pericarditis, pleuritis, or peritonitis). Macrophage activation syndrome (MAS) is a life-threatening complication of So-JIA characterized by persistent fevers, rash, cytopenia, elevated liver enzymes, elevated D-dimers, low fibrinogen and drop in erythrocyte sedimentation rate (ESR), elevated triglycerides, and coagulopathy. Affected patients may develop abnormal bleeding and cardiac, liver, or renal failure. Prompt recognition and management is key as this category of JIA has high morbidity and mortality.[5, 8]

Complications

Untreated JIA can lead to osteopenia, osteoporosis, destruction of the joint, premature fusion of the growth plates, and ankylosis of the joints leading to significant disability and functional limitations. Prolonged arthritis affecting a knee can result in accelerated growth of the affected leg and limb-length discrepancies. Complications of uveitis include posterior synechiae, glaucoma, band keratopathy, and eventual blindness. Amplified pain syndrome, psychosocial issues, such as anxiety, depression, and school absenteeism are more frequent in children with JIA.[5, 7]

Laboratory

There are no laboratory tests that are diagnostic for JIA. Baseline laboratory evaluation should include: [8]

- Complete blood count
- Liver function tests
- Serum creatinine
- Lactate dehydrogenase, and uric acid
- Inflammatory markers (ESR and C-reactive protein).

Additional testing may include:

- Synovial fluid analysis especially with acutely inflamed joints
- Antinuclear antibody (ANA) testing
- Rheumatoid factor (RF) and anti–cyclic citrullinated peptide (CCP) antibody
- HLA (human leukocyte antigen) B27 testing
- Fibrinogen, ferritin, D-dimer, angiotensin-converting enzyme, antistreptolysin 0, anti-DNAse B, urinalysis

The ANA can be valuable in some categories of JIA such as oligo-articular arthritis, as almost 70% of these children are positive. However, 40% to 50% of children with other subtypes of JIA can be ANA-negative. Additionally, ANA may be positive in healthy children without any underlying rheumatic disease. Similarly, only 10% of children with JIA are RF-positive. Human leukocyte antigen (HLA) B27 testing is frequently performed for diagnosis of ERA, but this test has poor sensitivity and specificity. Children may be HLA B27 positive but not have ERA.

Imaging is useful for early identification of joint damage such as joint-space narrowing or bony erosions. Ultrasonography and magnetic resonance imaging can identify active synovitis and may be preferred in joints where the clinical examination may be challenging such as in hips, shoulders, or TMJ. [8]

TABLE 2: American Academy of Pediatrics Guidelines for Ophthalmologic Examination in Children with Juvenile Idiopathic Arthritis

JIA Subtype	Age of Onset <7 Years	Age of Onset >7 Years
Oligoarticular JIA		
ANA+ ANA-	Every 3-4 months Every 6 months	Every 6 months Every 6 months
Poly Articular JIA		
ANA+ ANA-	Every 3-4 months Every 6 months	Every 6 months Every 6 months
Systemic Onset JIA	Every 12 months	Every 12 months
Enthesis Related Arthritis	Every 12 months	Every 12 months

Management

Management of JIA includes anti-inflammatory drugs, corticosteroids (oral and intra-articular), and disease-modifying antirheumatic drugs (DMARDS) like methotrexate (oral or subcutaneous). Biological response modifiers (BRM) are being used more frequently in the treatment of JIA. These include TNF inhibitors (tumor necrosis factor [TNF] inhibitors) (eg, etanercept, adalimumab, infliximab, golimumab) as well as other BRM that act by blocking the interleukin (IL)-6 receptor (tocilizumab), anti IL-1 inhibitor (anakinra), inhibitor of T cell costimulation (abatacept) or anti B cell treatment with rituximab. These agents are associated with increased risk of infections, hence ensuring appropriate vaccination status and prompt evaluation of fevers is crucial. The choice of pharmacological therapy is guided by the severity of disease activity and the presence or absence of features indicating a poor prognosis. [9, 10]

A multidisciplinary team approach to the treatment of JIA is key in ensuring adherence and prevention of complications of this chronic illness. Physical therapy can help to relieve pain and to address range of motion, muscle strengthening, activities of daily living, and conditioning exercises. Occupational therapy provides mechanisms for joint protection, improving range of motion, and attention to activities of daily living. Nutritionists can help in weight management, optimizing nutrition, particularly to address anemia and generalized osteoporosis. Psychosocial interventions include counseling for patient but also for family to help them cope with the diagnosis. Working closely with the child's school teacher to provide academic counseling and school-life adjustments such as an extra set of books for home use, rolling backpack, elevator pass etc., can be a great source of relief to the child and family. [5, 8]

The goal of therapy is to achieve remission and to prevent or control joint damage, loss of function, and pain. With the advances in medical treatment, there has been a reduced need for surgical interventions such as synovectomy, osteotomy, arthrodesis, or hip and knee replacement.

JIA is the most common rheumatic disease that affects children. General practitioners play a crucial role in the management of children with JIA by facilitating the initial diagnosis, ensuring adherence, monitoring for complications of the disease and its treatment, ensuring immunizations are up-to-date, and providing ongoing education and support to the family.

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Volunteer Today for 2019 Doctor of the Day Program

The Arkansas Medical Society will sponsor the **Doctor of the Day** program for the 2019 session of the Arkansas Legislature. The session convenes on January 14, 2019, and will continue for 60 days, but the time can be extended by action of the legislature. Volunteers are needed each Monday through Friday. The "Doctor of the Day" can attend committee meetings and has floor privileges in the House and Senate. You should plan to be at the State Capitol Infirmary from approximately 9:00 a.m. until 3:30 p.m. Please contact **Laura Hawkins** at 501-224-8967 or 800-542-1058 if you have any questions. For more details or to register, visit our website, www.arkmed.org or call 800-542-1058.

AMS BOARD OF TRUSTEES

Nominations are now being accepted for district trustees. The Board of Trustees consists of the primary officers of the AMS and district trustees representing 10 geographic areas of the state. There are currently 38 district trustees, which can fluctuate based upon the number of AMS members in each district. The Board of Trustees is responsible for the business and financial affairs of the AMS including helping to set policy. The Board meets quarterly with meetings generally lasting about two hours.

Eligibility Requirements:

- Must live and/or practice in the district
- Be an Active, Direct or Life member (most physicians fall into these categories)
- AMS dues must be paid for the current election year
- Candidates cannot run simultaneously for two districts (live in one, practice in another)
- Past Presidents are not eligible

Arkansas Urologic Society News

Arkansas Urologic Society – **Mark Jackson, MD**, of Fayetteville was elected to a two-year term as president of the Arkansas Urologic Society at their annual meeting in October. **Mohamed Kamel, MD** of Little Rock was elected secretary-treasurer. **Alex Finkbeiner, MD**, of Little Rock received the James W. Headstream Award for Lifetime Achievement in Urology.

Arkansas Ophthalmological Society News

John R. Chancellor, MD, with the Jones Eye Institute/UAMS, placed first in the resident podium competition at the 2018 Table Rock Regional Roundup with his presentation, "Comparison of the Cytotoxicity, Bacteriostatic Effects, and Ability to Seal Corneal Wounds Among Several Different Tissue Adhesives." The Arkansas Ophthalmological Society is one of the four state societies participating in the regional meeting.

Pictured (left to right): AOS members Christian Hester, MD; Severin Pouly, MD; John Chancellor, MD; Andrew Perin, MD; Grant Morshedi, MD; David Murphy, MD; and Stephen Davis, MD.

2019 RENEWALS

While you're working hard to make a difference in the lives of patients, AMS is working hard for members like you.

Renew your membership for 2019 at arkmed.org/renew or watch your mail for renewal information. 2019 is going to be a great year, but we can't make it happen without your continued support.

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