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Dear Colleagues and friends

The year has passed quickly, and we are already in the last 4 months of 2023. This year has seen a lot of activity within the OBGYN community in India both online and in person and some of us have had the opportunity to meet on many occasions.

This newsletter brings you an update on recurrent miscarriage from Prof Hassan Shehata VP Global Health RCOG. There is also a very interesting article on the temple architecture of South India by the renowned historian Dr Chitra Madhavan, an expert on Indian temple history, architecture, sculpture and iconography. I thank Dr Ranee Thakar, President RCOG for the update on India Day.

As always, we share an update of activities of AICC RCOG. I do hope many of you will be at Delhi for the annual congress.

As IRC India South we look forward to launch a module on communication in the coming months. I also want to take this opportunity to invite you to the annual SZ conference in Chennai on the 9th and 10th of December 2023.

Wishing all of you and your families a wonderful festival season in the months ahead.

Uma Ram

Comprehensive Management of Recurrent Miscarriage in Couples – A Narrative Synthesis and Clinical Guidelines

Professor Hassan Shehata

Senior and Global Health Vice President, Royal College of Obstetricians & Gynaecologists Southwest London and Surrey Heartlands Maternal Medicine Network Lead, London

Consultant Maternal Medicine Consultant and Lead, Epsom and St Helier University Hospitals NHS Trust, Surrey KT18 7EG



Abstract

The management of recurrent miscarriage (RM) is characterised by varying practices, owing to discrepancies in diagnostic criteria, investigations, and treatment options. Considering limited evidence-based guidelines for addressing RM and building upon the authors' previous work in the field, this narrative synthesis aims to present a comprehensive global approach. We offer graded recommendations founded on the best available evidence. For women, RM raises numerous uncertainties, encompassing causation, likelihood of recurrence, necessary investigations, and potential treatments. Health-care policymakers and providers grapple with similar uncertainties surrounding the provision of optimal care and organisational strategies. In the framework of this paper, our methodology is anchored in meticulous literature reviews, the evaluation of guidelines and consensus. The primary tenet emphasises the customisation of care, tailored to the clinical needs and preferences of women and their partners. Our work culminates in outlining a foundational set of investigations and treatments for couples dealing with recurrent miscarriages, advocating for universal accessibility within health-care settings.

Key among these diagnostic investigations is lupus anticoagulant and anticardiolipin antibodies measurements, thyroid function tests, and transvaginal pelvic ultrasound scans. Calibrated to identify multifaceted aetiologies, these investigations constitute an essential diagnostic framework that enhances precision in therapeutic interventions. Within the realm of treatments, strategic considerations come into focus. Administration of progesterone in the first trimester, depending on contextual nuances, surfaces as a crucial therapeutic avenue. The role of subclinical hypothyroidism in RM calls attention to the potential benefits of levothyroxine treatment. Furthermore, the evidence for the combined use of aspirin and heparin is increasingly being questioned in the light of recent publications, exemplifying a targeted treatment approach.

Recognising the complexity of care, we advocate the inclusion of mental health screenings and comprehensive management of future obstetric risks, including preterm birth, fetal growth restriction, and stillbirth. These dimensions, fully integrated into the care pathway, extend the scope of holistic care for couples with a history of recurrent miscarriage. To facilitate the implementation of these recommendations, a tiered model of care is suggested. This graded approach spans a spectrum from online health-care advisory and support platforms, through nurse- or midwifery-led clinics, culminating in consultant-led medical clinics. This stratification, aligned with clinical needs, emphasises the versatility of care provision, nested within a framework that pivots on individual needs.

In conclusion, this paper underscores the necessity of tailoring care, equipping health-care providers with a standardised compass in the complex landscape of recurrent miscarriage. By advocating a foundational set of investigations and treatments, along with a comprehensive approach that includes mental health and obstetric risk management, we chart a course towards enhanced care provision. The proposed tiered care model fosters an adaptive care ecosystem, well-equipped to meet the intricate needs of couples burdened by recurrent miscarriage.

Introduction

Recurrent miscarriages, defined by three or more consecutive pregnancy losses within the first 24 weeks of gestation, poses a considerable challenge for couples aspiring to conceive. The prevalence ranges between 1% and 5%, though these figures are challenging to pinpoint due to inconsistencies in definitions and reporting

(1-2). The emotional and psychological impact associated with repeated pregnancy losses highlight the need for empathetic healthcare guidance.

The root causes of recurrent miscarriages frequently elude precise identification, possibly stemming from a combination of hormonal, uterine, immunological, and lifestyle factors. Though clear causation often remains elusive, in-depth history-taking becomes crucial for designing tailored treatment plans.

A Comprehensive Medical History

A detailed and all-encompassing medical history acts as the cornerstone for managing couples navigating the complex territory of RM. This base not only assists in disentangling the complicated web of potential contributing factors but also furnishes a guideline for further investigations and customised therapeutic courses. A multitude of key elements emerge within this framework, each contributing nuanced insights towards understanding and managing RM.

Pregnancy Loss History

A careful investigation into the couple's history of pregnancy losses allows clinicians to differentiate between various types of losses—ranging from chemical pregnancies and common early miscarriages to the rarer late losses occurring after the ninth week of gestation. This differentiation holds significant implications for future management, particularly when losses extend beyond the 14-week mark, as this aids in honing in on the underlying factors and guiding ensuing treatment plans.

Obstetric History

The exploration of the couple's past obstetric experiences becomes vital. This includes examining previous instances of fetal growth restrictions, pre-eclampsia, and stillbirths, which can shed light on potential immunological factors, thereby informing a broader treatment strategy that may extend beyond the first trimester (3).

Gynaecological History

The patient's gynaecological history further contributes to this intricate picture. Conditions like polycystic ovarian syndrome, distinguished by specific hormonal patterns, or a history of surgeries involving the cervix or uterus, become critical points for subsequent investigations. Through a careful review of this gynaecological history, clinicians can identify potential structural or hormonal factors contributing to RM.

Medical and Surgical History

Adding to the complexity is the broader medical and surgical background, where existing autoimmune or endocrine conditions could act as potential triggers for pregnancy loss. Recognising these aspects enables the crafting of interventions that are in harmony with these pre-existing conditions.

Lifestyle and Environmental History

Lifestyle factors such as smoking habits, obesity, alcohol consumption, and drug use also play an intricate role in the RM risk profile. The cessation of smoking, for example, becomes a critical point of intervention (4-6), while the influence of obesity on fertility and pregnancy outcomes warrants careful consideration (7-10). Alcohol consumption (11-12) and drug use add additional layers requiring nuanced exploration.

Family History

The family history serves as another significant backdrop, revealing potential genetic or hereditary factors. A review of familial occurrences of RM or the presence of specific medical conditions within the family can offer valuable insights into immunological or genetic pathways (4,13).

In essence, the comprehensive medical history operates as more than mere documentation. It lays the foundation upon which diagnostic and therapeutic decisions are made, shaping a bespoke pathway to help demystify the enigmatic realm of RM and guiding couples towards optimal management.

Recommended Investigations

General Health Assessments

Initial steps involve conducting comprehensive health evaluations for both partners. This includes standard tests like full blood count, kidney, and liver function tests, as well as a close examination of Vitamin D levels. These tests offer clinicians a rounded view of the couple's overall health status, serving as a starting point for further inquiry.

Hormonal Profiling

Understanding hormonal interactions is crucial in the diagnosis and management of RM. Thyroid function tests, serum prolactin levels, and tests for ovarian reserves offer important insights into the body's endocrine system. Hormonal dynamics, notably progesterone levels, are pivotal in enabling the endometrial changes necessary for successful implantation and early pregnancy maintenance (14). Lower levels of progesterone during the luteal phase have been implicated in unsuccessful implantation and subsequent miscarriages (15). Progesterone not only prepares the endometrium for implantation but also suppresses uterine contractions and shows immunomodulatory properties by dampening T-cell activation and controlling cytokine production during pregnancy (16-18). These functions have made progesterone a widely used treatment option for recurrent miscarriages.

Role of Progesterone Supplementation

Both natural and synthetic forms of progestogens are employed for their therapeutic effects (19-22). Synthetic progestogens, known as progestins, differ molecularly from natural progesterone. Notably, while natural progesterone suppresses myometrial contractions, synthetic progestin 17-alpha hydroxyprogesterone caproate (17-OHPC) does not and may even induce contractions at higher concentrations. Long-term safety of progesterone supplementation still requires further investigation, although there is no evidence to suggests it causes fetal abnormalities (23-25).

We conducted a systematic review to evaluate the impact of progesterone in preventing miscarriages (26). Criteria for inclusion were: publications including subjects with a history of three or more miscarriages (consecutive and non-consecutive), studies reporting outcome of first-trimester, randomised controlled trials comparing supplementation of progestogens versus placebo/no treatment and publications from 1990 with a minimum of 50 cases per arm. Publications looking at different types of progestogen, dosage, and route of administration were all included in the analysis. The review excluded threatened miscarriages, second-trimester losses, preterm births, and withdrawn studies. A total of 1,298 papers were reviewed, with only two papers fully meeting the criteria. The review demonstrated that the effects of progesterone supplementation on live birth rates shows no significant difference compared to placebo groups. However, a trend is emerging that suggests potential benefits of synthetic oral progesterone (24). While existing research protocols on progesterone efficacy have been largely standardised, recent perspectives propose examining different forms and timings for progesterone administration. Specifically, oral progesterone and initiating treatment during the luteal phase, might offer enhanced efficacy in preventing recurrent miscarriages (26).

Immunological Probing

Immunological assessments form a crucial part of the diagnostic framework. Tests such as antinuclear antibodies panel (ANA), thyroid and gliadin antibodies, and evaluations for natural killer cells and cytokine profiles are key components in understanding the immunological landscape. Executed within the scope of expert oversight, these investigations can provide invaluable insights into potential irregularities in the immune system, thereby directing clinical decisions toward customised treatment plans.

Thrombophilia Screening

While both inherited and acquired forms of thrombophilia are prevalent in the general population, existing evidence does not suggest a causal relationship or demonstrable benefit from thrombophilia screening in the context of recurrent miscarriage (RM) (27). The new ACR/EULAR antiphospholipid syndrome (APS) classification criteria were developed using rigorous methodology with multidisciplinary international input (28). Hierarchically clustered, weighted, and risk-stratified criteria reflect the current thinking about APS, providing high specificity and a strong foundation for future APS research. The 2023 ACR/EULAR APS classification criteria include an entry criterion of at least one positive antiphospholipid antibody (aPL) test within 3 years of identification of an aPL-associated clinical criterion, followed by additive weighted criteria (score range 1-7 points each) clustered into 6 clinical domains of which one is obstetrics and 2 laboratory domains (lupus anticoagulant functional coagulation assays, and solid-phase enzyme-linked immunosorbent assays for IgG/IgM anticardiolipin and/or IgG/IgM anti-β2 -glycoprotein I antibodies). Patients accumulating at least 3 points each from the clinical and laboratory domains are classified as having APS. Three or more consecutive pre-fetal (<10 weeks) and/or early (10-16 weeks) fetal deaths score only 1, which suggests that recurrent miscarriage is no longer an indication for APS testing. We do, however, advocate for testing and treating APS if specific clinical signs such as thrombocytopenia, livedo reticularis, transient ischemic attack (TIA), or heart valve disease are present. Numerous studies have reported an elevated prevalence of thrombophilia in women with RM, but this has not translated to improved clinical outcomes (29).

We undertook a comprehensive study to evaluate the prevalence of both inherited and acquired thrombophilia in a large cohort of women with a history of early RM. This retrospective cohort study was conducted across two dedicated tertiary centres for RM in Southwest London and Surrey. The analysis covered 1,155 women between 2012 and 2017, all of whom had experienced three or more first-trimester miscarriages and had undergone a full thrombophilia screen. Our findings align with existing literature, showing that the prevalence of both inherited and acquired thrombophilia in women with RM is like that in the general population. Considering this, we do not recommend routine screening or treatment for hereditary or acquired thrombophilia in the RM population (27).

Parental Genetic Testing

While chromosomal abnormalities are a common cause of isolated miscarriages, there is currently no compelling evidence to suggest they contribute to RM (30). For couples experiencing RM, general genetic testing is not recommended unless there is a specific genetic history that might suggest an elevated risk. Such histories could include the previous birth of a child with congenital abnormalities, a family history of offspring with unbalanced chromosomal abnormalities, or detection of a chromosomal translocation in the pregnancy tissue. In cases with no such history, especially among women over 39 and those with fewer than three pregnancy losses, the likelihood of having a balanced translocation is considered low (31).

Additional Investigations

Emerging research points to the possible relevance of sperm DNA fragmentation in understanding miscarriage aetiology. This test is recommended due to growing evidence that increased fragmentation may contribute to miscarriage risk (32). However, it remains uncertain whether interventions aimed at reducing fragmentation levels will result in increased live birth rates.

Advanced imaging techniques, such as three-dimensional pelvic ultrasound fortified by saline infusion and hysteroscopy where necessary, offer valuable anatomical insights. Tailored to each individual case, these investigations can help to refine diagnostic accuracy and contribute to the formulation of personalised treatment plans.

Monitoring and Psychological Support

Ultrasound Monitoring

Comprehensive care for recurrent miscarriage (RM) is not solely confined to diagnostic tests and therapeutic interventions. Regular ultrasound monitoring, particularly before the critical 12-week gestational period, plays an indispensable role in allaying the fears and anxieties that often accompany RM. These ultrasound scans offer couples a visual affirmation of their pregnancy's progression, thereby serving dual purposes—offering real-time medical insights while also providing emotional reassurance. The scans can act as touchpoints of hope, contributing to emotional stability and enhancing resilience as couples navigate the complex emotional and medical landscape of RM.

Psychosocial Support

Emotional well-being is an often overlooked but vitally important facet of comprehensive care for RM (33-35). Recognizing the significant psychological toll that RM can exert on couples, clinicians take on a role that transcends that of medical advisors to become empathetic counsellors. Open, empathetic dialogue allows couples to discuss their fears, frustrations, and expectations, thereby reducing the sense of isolation that can accompany RM. The provision of accurate, timely medical information enables couples to make informed decisions, adding a layer of empowerment to their healthcare journey. Psychotherapeutic interventions such as counselling or cognitive-behavioural therapy may also be integrated into the treatment plan, offering additional avenues for emotional support.

By approaching care for RM from a multidimensional perspective—incorporating medical, emotional, and psychological elements into a continuum of care—clinicians can better support couples through this challenging experience. This comprehensive strategy not only addresses the immediate medical needs but also focuses on long-term emotional resilience and potentially improving live birth outcomes.

Conclusion

Navigating the emotional and medical complexities of recurrent first-trimester miscarriages requires a multipronged, patient-centred approach. To better equip couples facing this challenge, the authors recommend a comprehensive strategy encompassing medical, lifestyle, and psychosocial elements. Specifically, the authors advise the following steps (36):

- Seek Medical Evaluation: Early consultation with healthcare providers specialized in the domain of recurrent miscarriages is crucial. These professionals can offer tailored diagnostic assessments and evidence-based treatment plans, thus optimising the prospects for a successful pregnancy.
- 2. **Lifestyle Changes:** Lifestyle modifications, such as abstaining from smoking, limiting alcohol consumption, and adhering to a balanced diet, can positively influence reproductive health and potentially enhance the chances of a successful pregnancy.
- 3. Explore Fertility Treatments (case-dependent): For some couples, fertility treatments like ovulation induction, intrauterine insemination (IUI), or in vitro fertilization (IVF) could be beneficial, especially when specific, treatable factors contributing to recurrent miscarriages have been identified. However, the appropriateness of these interventions will vary from case to case and should be discussed in-depth with healthcare providers.
- 4. **Seek Support:** The emotional burden accompanying recurrent miscarriages cannot be underestimated. Couples should consider leveraging the support of close family and friends, joining support groups, or consulting mental health professionals for coping strategies.

It is vital for couples to remember that each case of recurrent miscarriage is unique, influenced by an array of genetic, medical, and environmental factors. As such, the recommendations should be adapted to each couple's specific situation, ideally under the guidance of a healthcare provider well-versed in the nuances of this challenging condition. Personalized medical consultation offers the best pathway to understanding the underlying causes and determining the most effective treatment and support mechanisms, ultimately increasing the likelihood of a successful pregnancy.

References

- The investigation and treatment of couples with recurrent first trimester and second-trimester miscarriage. RCOG Green-top Guideline No.17 2011.
- 2. The practice Committee of the American Society for reproductive medicine. Evaluation and treatment of recurrent pregnancy loss: a committee opinion 2012;98:1103–11. Volume
- Reus, A., Van Besouw, N. M., Molenaar, N. M., Steegers, E. A., Visser, W., De Kuiper, R. P., De Krijger, R. R., Roelen, D. L., & Exalto, N. (2013). An immunological basis for chronic histiocytic intervillositis in recurrent fetal loss. American Journal of Reproductive Immunology, 70(3), 230–237.
- 4. Zhang, B., Wei, Y., Niu, J., Li, Y., Miao, Z., & Zi-Neng, W. (2009). Risk factors for unexplained recurrent spontaneous abortion in a population from southern China. International Journal of Gynaecology and Obstetrics, 108(2), 135–138.
- 5. Wilcox, A. J., Weinberg, C. R., & Baird, D. D. (1990). Risk factors for early pregnancy loss. Epidemiology, 1(5), 382–385.
- Venners, S. A., Wang, X., Chen, C., Wang, L., Chen, D., Guang, W., Huang, A., Ryan, L., O'Connor, J. F., Lasley, B. L., Overstreet, J. W., Wilcox, A. J., & Xu, X. (2004). Paternal smoking and Pregnancy Loss: A prospective study using a biomarker of Pregnancy. American Journal of Epidemiology, 159(10), 993–1001.
- 7. Metwally Metwally, M., Saravelos, S. H., Ledger, W., & Li, T. (2010). Body mass index and risk of miscarriage in women with recurrent miscarriage. Fertility and Sterility, 94(1), 290–295. https://doi.org/10.1016/j.fertnstert.2009.03.021
- 8. Pandey, S., Pandey, S., Maheshwari, A., & Bhattacharya, S. (2010). The impact of female obesity on the outcome of fertility treatment. Journal of Human Reproductive Sciences, 3(2), 62. https://doi.org/10.4103/0974-1208.69332
- 9. Boots, C. E., & Stephenson, M. D. (2011). Does obesity increase the risk of miscarriage in spontaneous conception: A Systematic review. Seminars in Reproductive Medicine, 29(06), 507–513. https://doi.org/10.1055/s-0031-1293204
- 10. Lashen, H., Fear, K., & Sturdee, D. W. (2004). Obesity is associated with increased risk of first trimester and recurrent miscarriage: matched case-control study. Human Reproduction, 19(7), 1644–1646. https://doi.org/10.1093/humrep/deh277
- 11. Andersen (11) Andersen, A. N., Olsen, J., Grønbæk, M., & Strandberg-Larsen, K. (2012). Moderate alcohol intake during pregnancy and risk of fetal death. International Journal of Epidemiology, 41(2), 405–413. https://doi.org/10.1093/ije/dyr189
- Avalos (12) Avalos, L. A., Roberts, S. C. M., Kaskutas, L. A., Block, G., & Li, D. (2014). Volume and type of alcohol during early pregnancy and the risk of miscarriage. Substance Use & Misuse, 49(11), 1437–1445. https://doi.org/10.3109/10826084.2014.912228
- 13. Kolte, A. M., Nielsen, H. H., Moltke, I., Degn, B., Pedersen, B. P., Sunde, L., Nielsen, F. C., & Christiansen, O. B. (2011). A genome-wide scan in affected sibling pairs with idiopathic recurrent miscarriage suggests genetic linkage. Molecular Human Reproduction, 17(6), 379–385. https://doi.org/10.1093/molehr/gar003
- 14. Regidor, P. (2018). The clinical relevance of progestogens in hormonal contraception: Present status and future developments. Oncotarget, 9(77), 34628–34638. https://doi.org/10.18632/oncotarget.260
- 15. Swyer, G. I. M., & Daley, D. (1953). Progesterone implantation in habitual abortion. BMJ, 1(4819), 1073–1077. https://doi.org/10.1136/bmj.1.4819.1073
- 16. Berghella, V. (2012). Progesterone and preterm birth prevention: translating clinical trials data into clinical practice. American Journal of Obstetrics and Gynecology, 206(5), 376–386. https://doi.org/10.1016/j.ajog.2012.03.010

- Meis, P. J., Klebanoff, M. A., Thom, E., Dombrowski, M. P., Sibai, B. M., Moawad, A. H., Spong, C. Y., Hauth, J. C., Miodovnik, M., Varner, M. W., Leveno, K. J., Caritis, S. N., Iams, J. D., Wapner, R. J., Conway, D. L., O'Sullivan, M. J., Carpenter, M. W., Mercer, B. M., Ramin, S. M., . . . Peaceman, A. M. (2003). Prevention of recurrent preterm delivery by 17 Alpha-Hydroxyprogesterone caproate. The New England Journal of Medicine, 348(24), 2379–2385. https://doi.org/10.1056/nejmoa035140
- Szekeres-Bartho, J., Pár, G., Dombay, G., Smart, Y. C., & Völgyi, Z. (1997). The antiabortive effect of Progesterone-Induced blocking factor in mice is manifested by modulating NK activity. Cellular Immunology, 177(2), 194–199. https://doi.org/10.1006/cimm.1997.1090
- 19. Corner, S. (1974). The early history of progesterone. Gynecologic and Obstetric Investigation, 5(2), 106–112. https://doi.org/10.1159/000301641
- 20. Kuhl, H. (2005). Pharmacology of estrogens and progestogens: influence of different routes of administration. Climacteric, 8(sup1), 363. https://doi.org/10.1080/13697130500148875
- 21 O'Brien, J., & Lewis, D. F. (2016). Prevention of preterm birth with vaginal progesterone or 17-alpha-hydroxyprogesterone caproate: a critical examination of efficacy and safety. American Journal of Obstetrics and Gynecology, 214(1), 45–56. https://doi.org/10.1016/j.ajog.2015.10.934
- 22 Romero, R., & Stanczyk, F. Z. (2013). Progesterone is not the same as 17α-hydroxyprogesterone caproate: implications for obstetrical practice. American Journal of Obstetrics and Gynecology, 208(6), 421–426. https://doi.org/10.1016/j.ajog.2013.04.027
- Coomarasamy, A., Williams, H., Truchanowicz, E., Seed, P., Small, R., Quenby, S., Gupta, P., Dawood, F., Koot, Y. E., Bender-Atik, R., Bloemenkamp, K. W. M., Brady, R. C., Briley, A., Cavallaro, R., Cheong, Y., Chu, J., Eapen, A., Ewies, A., Hoek, A., . . . Rai, R. (2015). A Randomized Trial of Progesterone in Women with Recurrent Miscarriages. The New England Journal of Medicine, 373(22), 2141–2148. https://doi.org/10.1056/nejmoa15049
- 24 My, E. (2005). Dydrogesterone in the reduction of recurrent spontaneous abortion. The Journal of Steroid Biochemistry and Molecular Biology, 97(5), 431–434. https://doi.org/10.1016/j.jsbmb.2005.08.007
- 25 Katalinic, A., Shulman, L., Strauss, J. F., García-Velasco, J. A., & Van Den Anker, J. N. (2022). A critical appraisal of safety data on dydrogesterone for the support of early pregnancy: a scoping review and meta-analysis. Reproductive Biomedicine Online, 45(2), 365–373. https://doi.org/10.1016/j.rbmo.2022.03.032
- 26 Shehata, H., Elfituri, A., Doumouchtsis, S. K., Zini, M. E., Ali, A., Jan, H., Ganapathy, R., Divakar, H., & Hod, M. (2023). FIGO Good Practice Recommendations on the use of progesterone in the management of recurrent first-trimester miscarriage. International Journal of Gynaecology and Obstetrics, 161(S1), 316. https://doi.org/10.1002/ijgo.14717
- Shehata, H., Ali, A., Silva-Edge, M., Haroon, S., Elfituri, A., Viswanatha, R., Jan, H., & Akolekar, R. (2022). Thrombophilia screening in women with recurrent first trimester miscarriage: is it time to stop testing? a cohort study and systematic review of the literature. BMJ Open, 12(7), e059519. https://doi.org/10.1136/bmjopen-2021-059519
- 28 Barbhaiya M, Zuily S, Naden R, et al. ACR/EULAR APS Classification Criteria Collaborators. 2023 ACR/EULAR Antiphospholipid Syndrome Classification Criteria. Arthritis Rheumatol. 2023 Aug 28. doi: 10.1002/art.42624. PMID: 37635643.
- 29 Quenby, S., Booth, K., Hiller, L., Coomarasamy, A., De Jong, P. G., Hamulyák, E. N., Scheres, L. J. J., Van Haaps, T. F., Ewington, L. J., Tewary, S., Goddijn, M., & Middeldorp, S. (2023a). Heparin for women with recurrent miscarriage and inherited thrombophilia (ALIFE2): an international open-label, randomised controlled trial. The Lancet, 402(10395), 54–61. https://doi.org/10.1016/s0140-6736(23)00693-1
- 30 Franssen MT, Korevaar JC, van der Veen F, Leschot NJ, Bossuyt PM, Goddijn M. Reproductive outcome after chromosome analysis in couples with two or more miscarriages: index [corrected]-control study. BMJ (Clinical research ed.). Apr 1 2006;332(7544):759-763
- 31 Selective chromosome analysis in couples with 2 or more miscarriages: case-control study
- 32 Haddock, L., Gordon, S., Lewis, S., Larsen, P. B., Shehata, A., & Shehata, H. (2021). Sperm DNA fragmentation is a novel biomarker for early pregnancy loss. Reproductive Biomedicine Online, 42(1), 175–184. https://doi.org/10.1016/j.rbmo.2020.09.016
- 33 Kolte, A. M., Olsen, L., Mikkelsen, E. M., Christiansen, O. B., & Nielsen, H. S. (2015). Depression and emotional stress are highly prevalent among women with recurrent pregnancy loss. Human Reproduction, 30(4), 777–782. https://doi.org/10.1093/humrep/dev014
- Campillo, I. S. L., Meaney, S., McNamara, K., & O'Donoghue, K. (2017). Psychological and support interventions to reduce levels of stress, anxiety, or depression on women's subsequent pregnancy with a history of miscarriage: an empty systematic review. BMJ Open, 7(9), e017802. https://doi.org/10.1136/bmjopen-2017-017802
- Mevorach-Zussman, N., Bolotin, A., Shalev, H., Bilenko, N., Mazor, M., & Bashiri, A. (2012). Anxiety and deterioration of quality-of-life factors associated with recurrent miscarriage in an observational study. Journal of Perinatal Medicine, 40(5), 495–501. https://doi.org/10.1515/jpm-2011-0313
- 36 Ali A, Elfituri A, Doumouchtsis SK, Zini ME, Jan H, Ganapathy R, Divakar H, Hod M, Shehata H. Managing couples with recurrent miscarriage: A narrative review and practice recommendations. Int J Gynaecol Obstet. 2023 Jul 10. doi: 10.1002/ijgo.14971.PMID: 37431204.

Development of Temple Architecture in South India

Dr. Chithra Madhavan

Renowned historian, expert on Indian temple history, architecture, sculpture and iconography

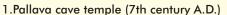


South India is known for the innumerable temples in every village, town and city. Some of them like the Ranganatha Swami temple in Srirangam, the Nataraja temple in Chidambaram and the Meenakshi-Sundareshwarar temple in Madurai are huge temple-complexes. Many of these are very ancient, being the result of several centuries of architectural growth and evolution.

The earliest temples of South India have been mentioned in the Tamil literature of the Sangam period (2nd century B.C. – 3rd century A.D.). However, most of the temples of this period cannot be seen today as they were constructed out of perishable material and have disintegrated over the centuries. From the time of the Chalukya kings of the ancient Karnataka area, starting from the 5th century A.D., in places like Badami and Aihole, `cave-temples' came into being. These caves were excavated out of rock with sculptures of various deities found inside- on the walls, pillars and even the ceilings. The Pallava kings who ruled over a large part of north Tamil Nadu and south Andhra Pradesh had Kanchipuram as their capital. They also created many cave-temples in the Tamil country from the 7th century A.D. onwards. These were very rudimentary in the earlier stages, but soon became very beautiful and ornate such as the ones in Mamallapuram.

Subsequently came the 'monolithic temples' which were chiseled out of one stone or boulder; excellent examples of these being the ones called 'the five rathas' in Mamallapuram. The Pandyan rulers of south Tamil Nadu, who were contemporaries of the Pallavas also excavated similar `cave-temples' and monolithic `rathas'







2.Pallava cave-temple (7th century A.D.)

in and around Madurai, which was their capital city.

Then came the construction of structural temples out of blocks of stone which were small and simple in the earlier stages and grew to large proportions in the subsequent centuries. With the coming of the imperial Cholas to power in the 9th century A.D. with their capital at Tanjavur, temple architecture reached its pinnacle. The `royal temples' of the Cholas at Tanjavur, Gangaikondacholapuram, Darasuram and Tribhuvanam are standing testimony to the glory of temple architecture of South India. Besides these, the Cholas constructed hundreds of smaller temples in almost every town and village across their vast empire. The sculptures of stone and bronze in the Chola temples are outstanding examples of the skill and dexterity of the artisans of the period and also reflect the patronage given to them by the Chola emperors.

The Pandyan rulers who resurfaced, following the decline of the empire of the Cholas in the second half of the 13th century A.D., are known for their contribution to the famous Minakshi-Sundareshvarar temple in the Madurai. The gopuras constructed by them in this temple set the example of many more to follow in the subsequent periods.



Brihadishwara temple,
 Thanjavur, Chola era,
 11th century A.D.



Brihadishwarar temple,
 Gangaikondacholapuram,
 11th century A.D.

The art and architecture of the kings of the Hoysala dynasty who ruled over south Karnataka deserve special mention. These temples were all built of soft stone and not of granite as in the most other parts of South India. Profusely decorated with sculptures, these star-shaped temples are very unique. The most important of the Hoysala temples are at Belur (constructed in 1117 A.D.), Halebid (its construction commenced in 1118 A.D.) and Somanathpur (13th century A.D.).



Kesava temple, Somanathapura, Hoysala dynasty, 13th century

The mighty empire of Vijayanagar was established in the ancient city of Vijayanagar (now called Hampi) in Karnataka in 1336 A.D. They soon conquered almost the whole of South India and contributed in no small measure to the development of temple art and architecture in South India. They drew upon the architectural plan of the temples of the Tamil country and constructed the beautiful temples in Hampi such as the Vittala temple, Achyutaraya temple and the gopura of the Virupaksha temple. To a very large number of temples in Tamil Nadu and Andhra Pradesh, they added gopuras (entrance doorways), prakaras (enclosures) and many smaller shrines and mandapas (open pavilions). The expansion of many of the temples into mammoth temple complexes is the result of the impetus given to religion and temple architecture by the monarchs of Vijayanagar.

The Vijayanagara emperors, beginning from the 16th century A.D. appointed viceroys called Nayaks in different parts of their empire including Tamil Nadu. These Nayak chieftains followed in the footsteps of their overlords, the Vijayanagar monarchs and added to the already big temples like those in Madurai, Tanjavur, Rameshvaram and Srirangam, among many others.



Vittala temple, Hampi,
 Vijayanagara dynasty,
 16th century A.D.

Storytelling as a Medium of Teaching



Ms Brinda Chakrapani

Special Educator and Storyteller M.Com, B.Ed (Special) Yuvabharathi Public School, Coimbatore



Anthony De Mello once said, "A story is the only thing that stands between a human being and the truth."

When children hear the lines "Once upon a time" and "Long, long ago," their interest and enthusiasm are piqued, and one can see the joy and excitement in their eyes. It has been demonstrated that storytelling aids children's cognitive, social, and emotional development. According to research, a child's brain develops the foundations of language even before they speak. Additionally, it claims that a child's brain is continuously active as they listen to a narrative. Children can begin communicating effectively through stories, which are a great medium for them. It improves vocabulary, communication skills, and creativity to better visualise spoken words.



When we tell a story, we are requesting that the kids use their imagination to "see" the characters, places, and activities in the future; their memory to recall what occurred prior to this point in the story; and their emotions to react to the story characters. In other words, listening to stories engages the entire brain.

Storytelling was used to transmit knowledge, culture, and ideas long before the written word. In India, people regularly shared stories during festivities, festivals, and household gatherings. There were tales involving verdicts, insight, wit, and humour. There were other tales that are riddled with clues. Wisdom and ideals are passed down through the generations.



However, in today's environment where kids are so glued to the images thanks to social media and computers, they find it hard to pay attention to spoken words. Deep listening, according to Kay Lindahl, creator of "The Listening Centre," is a lost talent. Children can improve their vocabulary, comprehension, and language skills by listening to others speak. These crucial communication abilities are the cornerstones of literacy and education. Children's listening skills can only be improved through the potent storytelling medium.

There has long been a misconception that stories are only appropriate for young children. The human experience is one that all stories share. As a teacher, I've taught all of the disciplines in my classrooms using storytelling as a medium. When I first began my teaching career, I noticed that only about 10 of the 35 students were motivated to listen and participate. Some kids were afraid to speak out and participate in class for fear that their responses would be incorrect. So, the first and foremost thing I personally felt was the necessity to motivate the children to learn. When it comes to primary school students, they have a very short attention span. So, I thought it was essential to have a great tool to interest every student in the class.

That's when I encountered storytelling and immediately recognised it as a fantastic tool for connecting with children as well as for educating. I believe human beings are born storytellers and to further enhance the skill I did a course with Kathalaya, Bangalore. Then I gradually began to include it in my teaching. In my opinion, there are numerous periods in the process of learning where storytelling could be applied. In order to get the kids interested in the subject, better explain the concepts, and make the lesson more vibrant and interactive, I started employing storytelling. I also started utilising this as an evaluation technique to check if the students had a solid grasp of the subject matter. For ex: - For the ninth grade, I have taught the notion of "Direct and Indirect speech" through stories and play. I read a narrative to the kids in indirect speech and asked them to switch to direct speaking. The kids took pleasure in the procedure and realised its context-specific application. Similar to this, telling a folktale about eclipses and moon phases piqued the children's interest in learning about them. The children's involvement and participation in class with joy and enthusiasm, the way they responded without any kind of inhibition or fear, and of course the deeper understanding of the subject are the most positive changes I noticed when I started using storytelling as a medium of my teaching. Children in primary loved to listen to the stories narrated with voice modulation and actions. I observed that children were motivated to narrate the story on their own once they listen to it and it improved their speaking skills as well. The teacher and students would develop a strong connection and relationship on a personal level.

I made the decision to employ storytelling as a teaching tool for kids with exceptional needs after completing my specialisation in special education. That's when, regardless of their requirements, I witnessed the power of storytelling on all the kids. I have taught kids with learning disabilities, autism, and down syndrome using storytelling as a teaching tool. However, different listeners like different narrative kinds and storytelling styles. The narration of sequential stories allowed researchers to observe a significant improvement in the sequential memory of autistic youngsters. In a similar vein, storytelling can help teach Maths concepts to kids with learning disabilities.

In order to integrate storytelling with teaching, one needs to identify the lessons to be taught along with the stories. Once the concept is clear, we can find a suitable story. Stories come in a variety of forms, including epic, mythology, fables, legends, and folktales. Finding a story should be the first step in beginning the narrator's preparation. Different telling techniques, such as using props, puppets, chitrakathas, and masks, could be used to encourage audience participation and maintain their interest in the story.

Effective communication, solid observational skills, voice modulation, a grasp of language and vocabulary, and many other fundamental abilities are required for good storytelling. In addition to the aforementioned abilities, the most crucial quality a storyteller must possess is faith in the tales they tell and it should be narrated with love and care.

Recent research indicates that youngsters who use social media have a generation that is easily distracted and has short attention spans. Therefore, it is even more important now than ever to assist kids improve their listening abilities through a potent medium, and I believe storytelling is one of those to help kids grow in their cognitive, emotional, and social development.

ACTIVITIES

India Day at the Royal College

Dr Ranee Thakar

President RCOG

Consultant Obstetrician and Urogynaecologist ,Croydon University Hospital Honorary Senior Lecturer, St George's University of London

As President of RCOG, I am proud to be able to say that we are truly global College. A great example of this was an event close to my heart in early summer when many Indian colleagues and friends joined us at our RCOG home in London.



To mark the end of a very successful day, the event ended with dancing and singing, bringing a sense of connectedness and wholeness!



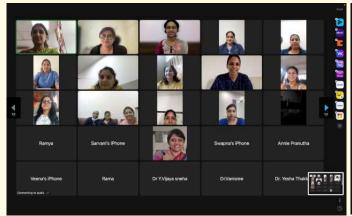






Perinatal Mental Health Course

The perinatal mental health course was a two day program covering the entire spectrum of common mental health issues with experienced perinatal psychiatrists and obstetricians as faculty. The course was conducted during 22nd and 23rd of July 2023 and was well received with 25 participants.



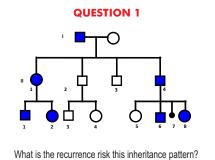




CONTRIBUTORS FOR THE QUIZ:

Dr. Kalpana GowrishankarSenior Consultant Geneticist,
Apollo Hospital, Chennai.

Dr. Lakshmi Shanmugasundaram, Locum Consultant Obstetrics & Gynecology, Queen Elizabeth Hospital, Woolwich.

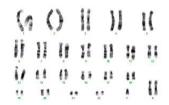


QUESTION 2



Name the anomaly and its recurrence risk for the next pregnancy.

QUESTION 3



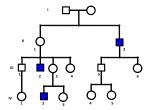
What is the diagnosis and its recurrence risk for the next pregnancy?

QUESTION 4



Name the malignancy that is increased in this condition

QUESTION 5



What is the inheritance pattern?

QUESTION 6

Is this a normal FISH report for chromosome 21 and 18?



Image showing Interphase FISH From Amniotic Fluid

- * Red Signal chromosome 21
- * Green signal chromosome 18

Answers in Page 16

The much awaited MRCOG Part 3 revision course

Registration link: https://forms.gle/k5SDYr6fYiHtUCFn9

organized by the ATN RCOG is to be held in Chennai on 13th and 14th October 2023.

UPCOMING EVENTS

MRCOG Part 3 Revision Course



MRCOG Part 3 Revision Course

Organised by ATNRCOG
DATE: 13th & 14th October 2023
VENUE: Chennai

By eminent faculty backed with two decades of experience in training for MRCOG.

- 2 day course covering all the essentials of part 3 preparation
- Comprehensive discussions on all domains of the exam
- 2 full mock circuits with feedback

Email: chennaimrcogcourse2023@gmail.com Call: 8754599174 / 9940670186

Registration Link:

https://forms.gle/k5SDYr6fYiHtUCFn9

Register soon to book your place...

LAMBCON 2023



The 3rd South Asia LAMBCON is to be held on 30th September and 1st October 2023 at Chennai. There are multiple workshops on lactation management with an exclusive workshop on "Lactation management for Obstetricians" at the Institute of Obstetrics and Gynaecology for Women and Children at Egmore, Chennai on 30th September 2023.

For further details visit the website: http://www.lambcon2023.com

RCOG SZ Annual Conference



The Annual conference of the AICC RCOG South Zone and ATNRCOG is to be held in Chennai on 9th and 10th December 2023. The theme of the conference this year is" Practising Safety Ensuring Success" with interesting line up of workshops, lectures, orations and keynote addresses.

Registration link:

https://in.eregnow.com/ticketing/RCOG-IRC

Abstract Submission link:

https://in.eregnow.com/ticketing/register/RCOGIRCAbs

Workshop on Breech births: 6th November 2023

A workshop on Breech births is being organized at Fernandez hospital in collaboration with faculty from the NHS, UK led by Ms Kate Stringer.

Ms Kate Stringer is a Consultant midwife with extensive experience in education, training, clinical practice, midwifery-led care and public health initiatives both in the UK and abroad. She holds a number of teaching and research positions including implementation lead for the Breech Birth Network, PI OptiBreech UK Vaginal Breech research trial, RCOG Breech birth workshop co-lead, BirthRights UK.

This comprehensive course has been designed to increase knowledge in the management of women in labour with a breech-presenting fetus. The programme includes an immersive blend of lectures, case studies, videos, peer discussion and hands-on practice.

ANNOUNCEMENTS

Applications invited for the 6th AICC RCOG Southern Zone Travelling Fellowship

The AICC RCOG southern zone invites applications from members of RCOG from Telangana, Andhra Pradesh, Karnataka, Kerala, Puducherry and Tamil Nadu for the travelling fellowship. The duration of the fellowship is two weeks and selected applicants would be observers in designated centres of excellence in Fetal medicine, Urogynaecology, Reproductive Medicine, Infertility, Gynaecologic Oncology or Endoscopy.

Details have been posted in the AICC RCOG SZ website https://aiccrcogsz.com/travelFellowship.php

Last date for applications has been extended to 20th October 2023

ANSWERS TO QUIZ

- (1) Recurrence Risk is 50% autosomal dominant.
- (2) Acrania with a recurrence risk is 2-5%.
- (3) 47,XXY Kleinfelter syndrome with a recurrence risk of 1% or less.
- (4) Turner syndrome has increased chance for gonadoblastoma in the streak gonad.
- (5) X-linked recessive inheritance.
- (6) No, this is an abnormal report, suggestive of fetal trisomy 21.

