Review Form 1.6

Journal Name:	**Journal of Advances in Medicine and Medical Research**
Manuscript Number:	**Ms_JAMMR_84054**
Title of the Manuscript:	**4D Ultrasound of Fetal Facial Expressions in Low and High-Risk Pregnancies as an Indicator of Fetal Neuro-Behavior in Last Trimester**
Type of the Article	**Original Research Article**

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Compulsory REVISION comments	***To The Editor*** Thank you for giving me the opportunity of reviewing the manuscript submitted to **Journal of Advances in Medicine and Medical Research**. This paper is interesting, and may have new information for readers of **Journal of Advances in Medicine and Medical Research**. However, there are some major revisions to accept this manuscript. My main concern is that references cited in the text are too old, and that many more related articles are missing. Authors should cite more related latest papers. Moreover, there are many grammatical and spelling errors. This paper should be checked and edited by the native experts. This paper is interesting, and may have new information for readers of **Journal of Advances in Medicine and Medical Research**. However, there are some major revisions to accept this manuscript. My main concern is that references cited in the text are too old, and that many more related articles are missing. Authors should cite more related latest papers. Moreover, there are many grammatical and spelling errors. This paper should be checked and edited by the native experts.	
Minor REVISION comments	1. Authors used 'fetal' and 'foetal' in the text. 2. What is the definition of 'low-risk pregnancy? 3. What 4D machine did authors use? 4. Who did KANET assessment? 5. Authors used old version of KANET [1]. Why not did authors use revised version [2]? **#1** Kurjak A, Miskovic B, Stanojević M, Amiel-Tison C, Ahmed B, Azumendi G, Vasilj O, Andonotopo W, Trudic T, Salihagić-Kadić A. New scoring system for fetal neurobehavior assessed by three- and four-dimensional sonography. J Perinat Med 2008 Jan;36(1):73-81. **#2** Stanojević M, Talic A, Miskovic B, Vasilj O, Shaddad AN, Ahmed B, Salihagić-Kadić A, Predojevic M, Vladareanu R, Lebit D, Abu-Yaqoub S, Al-Noobi M. An attempt to standardize Kurjak's Antenatal Neurodevelopmental Test: Osaka consensus statement. Donald School J Ultrasound Obstet Gynecol 2011 Oct-Dec;5(4):317-329. 6. How much is the examination time? 7. The examination protocol is verbose. Authors should make it more concise. 8. References cited in the text are too old, and that many more related articles are missing. Authors should cite more related latest papers using 4D ultrasound and KANET. **General** **#3** Hata T. Current status of fetal neurodevelopmental assessment: Four-dimensional ultrasound study. J Obstet Gynaecol Res 2016;42:1211-1221. **#4** AboEllail MAM, Hata T. Fetal face as important indicator of fetal brain function. J Perinat Med 2017;45:729-736. **#5** AboEllail MAM, Kanenishi K, Mori N, Hata T. Corordination of fetal facial expressions after 36 weeks of gestation. Donald School J Ultrasound Obstet Gynecol 2018;12:156-161. **FGR** **#6** Andonotopo W, Kurjak A. The assessment of fetal behavior of growth restricted fetuses by 4D sonography. J Perinat Med 2006;34:471-478. **#7** Chida H, Kikuchi A, Kanasugi T, Isurugi C, Oyama R, Sugiyama T. Facial expressions of fetal growth restriction and appropriate-for-gestational age fetuses assessed by four-dimensional high-definition live ultrasound. Gynecol Obstet (Sunnyvale) 2017;7:1000455. **#8** Mori N, AboEllail MAM, Tenkumo C, Kanenishi K, Nishimoto N, Hata T. Fetal facial expressions in small-for-gestational-age and growth-restricted fetuses. J Matern Fetal Neonatal Med 2019;32:1426-1432. **#9** Mori N, Kanenishi K, AboEllail MAM, Nitta E, Hata T. Neurological development may be accelerated in growth-restricted fetuses: a 4D ultrasound study. J Perinat Med 2019;47:429-433. **Prediction of neurological disorders using KANET** **#10** Hata T, Kanenishi K, Mori N, AboEllail MAM, Hanaoka U, Koyano K, Kato I, Kusaka T. Prediction of postnatal developmental disabilities using antenatal fetal neurodevelopmental test: KANET assessment. J Perinat Med 2019 Jan;47(1):77-81. **Difference in KANET score between primipara vs multipara** **#11** Hata T, Hanaoka U, AboEllail MAM, et al. Does parity have an effect on fetal behavior? A comparison between primi- and multiparas. Donald School J Ultrasound Obstet Gynecol 2016;10:99-102. **Diabetes mellitus** **#12** Antsaklis P, Porovic S, Daskalakis G, Kurjak A. 4D assessment of fetal brain function in diabetic patients. J	

	Perinat Med 2017;45:711-715. 9. Authors should discuss the reproducibility of KANET test. Especially, future use of AI for KANET. **#13** Miyagi Y, Hata T, Bouno S, Koyanagi A, Miyake T. Recognition of facial expression of fetuses by artificial intelligence (AI). J Perinat Med 2021;49(5):596-603. **#14** Miyagi Y, Hata T, Bouno S, Koyanagi A, Miyake T. Recognition of fetal Facial expressions using artificial intelligence deep learning. Donald School J Ultrasound Obstet Gynecol 2021;15(3):223-228.	
Optional/General comments		

PART 2:

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

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