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| **No. (Author)** | **Name** | **Methodology** | **Drawbacks** |
| **1** (Alkan A) | Use of K-means clustering in migraine detection by using EEG records under flash stimulation | EEG signals are pre-processed & analysed using Histograms. Features are set to K-means algorithm for detecting migraine. | Based upon analysing brain wave signals. Requires resources and is inefficient. |
| **2** (Subasi A, Tuncel D) | Analysis of repetitive flash stimulation frequencies and record periods to detect migraine using ANN | Flash stimulation is based on frequency analysis in EEGs. Frequency ranges in Hz are used to determine migraine at beta-bands | Complex process of analysing frequencies over time. Requires long duration and equipment to just detect migraine. |
| **3** (Akben SB, Subasi A, Kiymik MK) | Comparison of artificial neural network and support vector machine classification methods in diagnosis of migraine by using EEG | Frequency spectrums are classified using ANN & SVMs. Detecting migraine among headache symptoms, using triggering factors. | Similar to the previous ones |
| **4** (Andrew Charles) | The Migraine Aura | Basic mechanisms of migraine aura and its clinical significance based upon evidence from human studies and animal models. | Only intended to identify migraine with Aura (unrelated to non-aura migraines) |
| **5** (Catherine, Nathan) | Migraine classification using magnetic resonance imaging resting | Used ML techniques to develop biomarkers for rs-fMRI data | Just provided insights upon pain circuits in the brain that acted as biomarkers to identify migraine patients |
| **6** (Wei-Ta Chen, Cing-Yan) | Migraine classification by ML with functional near-infrared spectroscopy during the mental arithmetic task | Subjects’ haemoglobin in the brain was measured using fNIRS during mental attacks | fNIRS & haemoglobin analysis is not quite the easy or standard way to quickly identify the types of migraine. |
| **7** (Yolanda Garcia-Chimeno, Juan Carlos) | Automatic migraine classification via feature selection committee and ML techniques over imaging and questionnaire data | Diffusion tensor Images & questionnaires like IQ were used to enable feature selection & Multiple ML techniques. | DTI images & IQ questionnaires are a complex process to create classification models. Lot of scope for optimization |
| **8** (Konrad Jackowski) | Migraine Diagnosis Support System Based on Classifier Ensemble | Ensemble pool of elementary classifiers are combined to increase accuracy in identifying migraine from regular headaches | Does not provide any insights into types of migraines based on aura, and null on menstrual-related migraines |
| **9** (Paola Sanchez) | Automatic migraine classification using artificial neural networks | Designs & tests an early classification system to classify 7 different types of migraines using ANN | No significant EDA performed. Increased dimensions and incomprehensible correlations among the variables. Leaves scope for efficient system to be built over neural networks (other than old MLP Classifier) |
| **10** (Stephen D Silverstein) | Diagnosis and Treatment of the Menstrual Migraine Patient | Provides medical diagnostic criteria for women having migraine without Aura. | Provides a perspective into post-identification procedures & treatments for women with menstrual migraine. |