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HIV prediction using Vedic astrology & data mining technique

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Abstract

Unlike other medical conditions, HIV / AIDS is one of those irreversible medical conditions where the carrier of the virus not only goes through the severe medical condition but also goes through a very tough psychological breakdown along with unpredicted social reaction. The HIV bearer goes through serious damage to the immune system by the HIV virus which eventually leads to AIDS which is the syndrome. Although multiple HIV prevention programs are being conducted across the globe, the count is still getting increased rapidly year by year. A details study was conducted to understand the symptoms of HIV / AIDS from medical perspective along with the classic Vedic Astrology books to identify the HIV / AIDS symptoms from astrological perspective. A total of 144 references were identified which might lead to HIV / AIDS. A total of 979 HIV Positive samples and 979 HIV Negative samples were collected from multiple hospitals and reliable sources across globe. The sample was collected from 49 countries. The astrological charts were generated based on gender, date of birth, time of birth & place of birth and then converted into raw data in Excel with a total of 181 variables. Further, the statistical analysis was done using SPSS Statistics and then using SPSS Modeler, multiple data mining models were run. After running multiple algorithms, 110 variables were dropped out and the final algorithms were run with 71 variables. It turned out, the Bayesian Network algorithm for Data Mining gave the best fit model with coincidence matrix accuracy of 97.29%. The evaluation metrics had AUC of 0.996 and Gini of 0.993. The model had confidence value for always correct was 0.998 with 97.29% accuracy along with 98.69% 2.0-fold accuracy. Out of 979 HIV positive cases, the model predicted 940 cases correctly. Out of 979 HIV negative cases, the model predicted 965 cases correctly. This gave the confidence value report for mean correct as 0.986. There is very high co-relation between astrological chart and HIV/AIDS transmission. With the help of astrological chart and by applying this Bayesian network model, we can predict the chances of HIV transmission with an accuracy of more than 97% which is one of the most accurate models in the field of Medical Astrology. The implementation of this model can make huge difference in order to slow down the transmission of this irreversible virus from one person to another. This could be a ground breaking approach for public health professionals to take necessary preventive action in order to stop this infection getting spread and make the world once again HIV free.

Keywords: HIV, AIDS, Medical Astrology, Vedic Astrology, HIV Prevention, HIV Prediction

Introduction

Many of the clinical features of HIV can be ascribed to the profound immune deficiency which develops in infected patients. The destruction of the immune system by the virus results in opportunistic infection, as well as an increased risk of autoimmune disease and malignancy. In addition, disease manifestations related to the virus itself may occur. The term HIV and AIDS are very frequently being used interchangeably. It is very important to understand that HIV is the virus "Human Immunodeficiency Virus" which leads to AIDS which is the syndrome "Acquired Immuno-Deficiency Syndrome". This virus eventually starts affecting the immune system of human body.

In Vedic Astrology, there are various references that leads to the similar symptoms so called HIV in the modern medical term. Which is the combination of blood infection, virus related antigen along with the immune system. The Vedic Astrology clearly indicated these conditions and diseases because of the various combinations related to the Houses, Zodiac, Planets along with other parameters. This study will create a link between modern science and the ancient Vedic Astrology that can lead us not only to predict the HIV but also to prevent the occurrence

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of the event if correct precautions can be taken at the correct time. This could lead us to a ground-breaking advancement in the field of Medical Astrology. This study is an effort to figure out the co-relation between HIV transmission and Vedic Astrology for the human being. This study further analyzes the time frame co-relation from the natal chart when the virus is being transmitted. This study explains various parameters from natal chart based on Vedic Astrology that is used for the co-relation and research purpose. The theoretical background used in this study is being briefly illustrated with present medical perspective along with how it is related to the natal chart of an individual.

In Vedic Astrology, the term HIV is not being used directly and reason being HIV itself is a new term (with first known case in 1981). However, the scientific reason, causes, symptoms as well as affect because of HIV can be traced at various places in Vedic Astrology. So, this kind of disease is not new for Vedic Astrology and is being well referred under the branch Medical Astrology.

Methods

HIV/AIDS was first identified in the early 1980’s. Since then, the number of people infected with HIV has increased rapidly throughout the world. HIV/AIDS has become the most widely talked about condition in history. However, each day more and more people are becoming infected. To date, there are only four primary methods of transmission i.e., sexual intercourse (anal and vaginal); contaminated blood and blood products, tissues and organs; contaminated needles, syringes and other piercing instruments; and Mother-to-child transmission (MTCT).

In order to understand the HIV/AIDS from astrological perspective, classic Vedic Astrology book Brihat Parashara

Hora Shastra by Giridhara Lala Sarma & Govinda Sarma, published in the year 1905 by Sri Venkateswara Press, Bombay has been studied in depth to highlight all those possible aspects that matches with the symptoms & transmission methods for HIV/AIDS from medical perspective. The reference was taken from the book AIDS and HIV Infection by UNAIDS, published in the year 1999 by UNAIDS, Geneva.

Although it was not an easy task to understand the HIV/AIDS from astrological perspective because the disease itself was first identified in 1980s’ and all the classic astrological books are written before this time. So, no direct reference was available for HIV/AIDS. However, after studying the classic astrological books like Brihat Parashara Hora Shastra, Brihat Jataka, Phaladeepika, Sarvarth Chintamani, Jataka Parijata & Bhrigu Samhita, a baseline was identified to further analyse HIV/AIDS from Vedic Astrology perspective.

In Order to reach globally, the Google Form was used for data collection purpose. The Google Form had been shared with reliable sources to get authentic data. As a protocol from ethics perspective, all the basic information had been shared in the Google Form. The Google Form questionnaire was reviewed as well as approved by the authorized ethics committee. Several NGOs had been reached out to help in this research. Few of them showed their anonymous interest and helped collecting the data. This global reach was tough but ultimately the message was spread across the globe which helped achieving the data collection target on time. The data inputs were kept very simple so that it could be understood easily with minimum assistance. The questionnaire is shown in the table below:

Table 1: Data Collection Questionnaire

Question	Type
Gender	Mandatory
Date of Birth (DD-MM-YYYY)	Mandatory
Place of Birth (City, Country)	Mandatory
Time of Birth (HH:MM)	Mandatory
Positive Since (MM-YYYY)	Mandatory
Transmission Mode	Mandatory

In order to make sure that the date is valid, each and every data had been checked one by one without a miss. Further, a re-check had been done for the valid data to re-confirm the validity of the data. In this phase multiple data had been dropped out due to lack of validity as there is no bandwidth for the benefit of doubt over data in Vedic Astrology. Out of 5842 data, only 1958 data were finalized. The objectivity is being achieved by using reliable data sources and sound analytical techniques and by using highly qualified people to collect data that are carefully reviewed. All the letters and authorizations were in place before data collection and only authorized persons have collected the data to meet the objectivity.

In order to analyze the HIV positive factors from Astrological perspective, we needed the data of HIV Positive respondent only. However, in order to have an effective model, both HIV

positive as well as negative data were required. Getting HIV negative respondent looks easy. However, a true HIV negative respondent technically means that they are not going to get HIV in future. So, in order to manage this, data of dead people from multiple reliable sources had been collected. The data had been collected only from those people who died from 2019 till 2023 and were given medical clearance that the reason of death was not HIV or the person was HIV negative till the death. Also, in order to avoid any astrological chances of vitality, only those respondents were chosen who either died at old age or died naturally. The data were collected across the globe with a broad coverage over latitude and longitude. 979 unique HIV positive respondent and 979 HIV negative respondent data was analyzed which were collected from 49 different countries having different time zones. The final data summary is shown in the table below:

Table 2: Final Data Summary

Description	Count
Final unique data	1958
HIV Positive unique data	979
HIV Negative unique data	979
Number of countries covered	49
Total Count:	1958

The charts had been generated for all HIV Positive as well as HIV Negative respondents based on the data i.e., gender, date of birth, place of birth & time of birth using the licensed standalone software Kundli and had been analyzed manually. Only licensed softwares have been used in order to maintain the objectivity of the chart. Also, the standalone softwares have been used in order to avoid any data leakage threat as the HIV data is very sensitive to be used. Additional conditions such as malefic, benefic, fixed, movable, nature, exaltation, debilitation, self-sign, degree, power, stage, conjunction, dosha, friendship, rashi, house, nakshatra, rashi lord, nakshatra lord, dasha, combustion, retrograde, aspects along with all parameters including vargas & dashas have been considered. Extra precautions and focus are given on longevity, death, adverse, partner and evil houses along with natural malefic planets especially if they are on debilitation. For data analysis purpose, licensed standalone software Microsoft Excel, licensed standalone software IBM SPSS Statistics & IBM SPSS Modeler have been used. The initial data analysis was carried out using Microsoft Excel in order to convert the chart into raw data. This was the most critical part as it was carried out manually one by one for all data. A total of 181 variables were used during data entry process. Once the charts were converted into raw data, IBM SPSS Statistics was used to analyze the raw data. The software has various advanced features that helped analyzing the data in a very effective and systematic way. This helped to validate the inferences of the literature review and also to find out any missing and/or wrong input. The missing and/or wrong inputs were re-checked by referring the charts and had been updated manually. At last, for final data modeling purpose, IBM SPSS Modeler was used to check which model suits the best. Due to sufficient count of samples, it was decided to proceed the research using Data Mining Techniques. Multiple algorithms were used initially including C5, Logistic Regression, Decision List, Bayesian Network, Discriminant, KNN, LSVM, Random Trees, SVM, Tree-AS, CHAID, Quest, C&R Tree, & Neural Network. Due to huge number of variables, some of the algorithm even took couple of days to be executed. So, further duplicate variables identification was carried out. Although none of the variables were duplicate, however the independent variables with 100% co-relation with another independent variables were identified and excluded. Finally, the number of independent variables were reduced from 181 to 71. Data were given for modeling under the data mining techniques. Multiple data mining models had been generated and after in-depth analysis of the outcomes, finally the Bayesian Networks Modeling for Data Mining was chosen for data modeling purpose. For final testing and modeling purpose, three different models had been generated

which are shown in the table below:

Table 3: Data Mining: Bayesian Networks Models

Model	Purpose
HIV Status	To predict the possibility of getting HIV positive
HIV Mahadasha	To predict the Mahadasha of HIV transmission
HIV Antardasha	To predict the Antardasha of HIV transmission

HIV Status model is generated using both HIV positive as well as HIV negative data to find out whether the model is good enough to learn from the existing data (training data) and further predict HIV status for new data (testing data). The HIV Mahadasha & HIV Antardasha models are generated only for HIV positive data to find out whether the model is good enough to learn from the existing data (training data) and further predict the transmission phase for new data (testing data).

Results

The result indicates that there is using the data mining technique with Bayesian network model, the transmission of HIV for a person can be predicted with accuracy of more than 97% using the person’s birth chart. Not only this, using astrological chart along with data mining models, even the HIV transmission phase can be tracked down. This transmission phase is known as Mahadasha & Antardasha in astrological terms. This prediction can not only help someone understanding the chances of getting HIV transmission in future but also to give the person a rough idea of timelines so that the person can take preventive actions from medical perspective to minimize the chances of getting infected. The HIV_Status model was generated using 979 HIV positive data and 979 HIV negative data. The 50% positive and 50% negative distribution was decided in order to avoid model overfit and/or underfit scenario. The result shows a very accurate model to predict the HIV possibility of a person using the astrological chart. The model is 97.29% accurate with a very high area under the curve (AUC) i.e., 0.996. Further, the transmission phase models i.e., Mahadasha model and Antardasha model was generated only for HIV positive cases. The Mahadasha model shows the accuracy of 99.38% with only 6 wrong predictions. The Antardasha model shows the accuracy of 98.46% with 15 wrong predictions. In simple words, if the person takes the necessary precautions during the predicted transmission phase whose chart predicts HIV status as positive, this model can help people avoiding the HIV transmission with error of 0.03%. Saving 9,997 persons out of 10,000 from getting HIV transmitted is a huge leap for humanity.

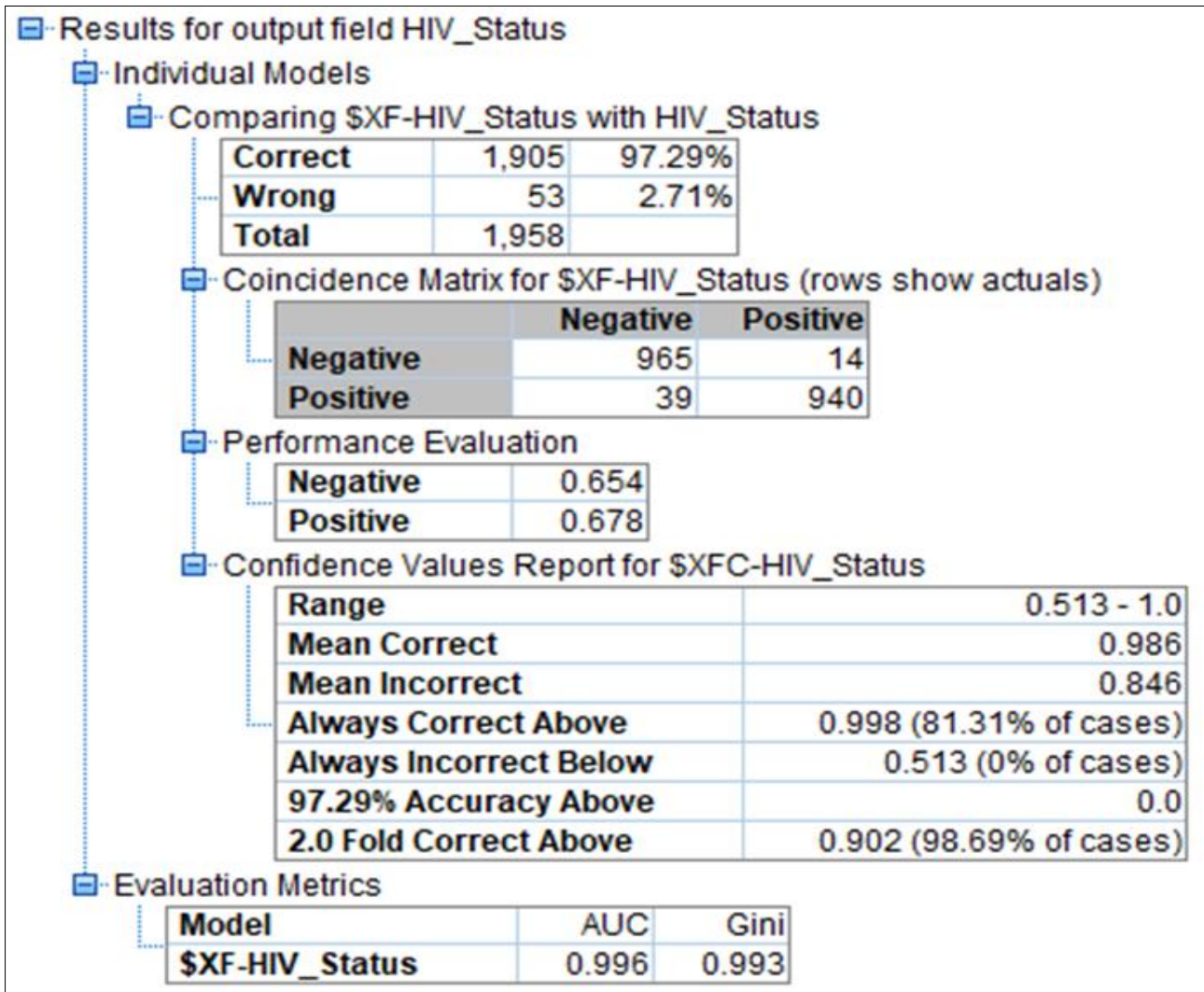


Image 1: HIV Status Model Report

Graph	Model	Build Time	Max Profit	Max Profit	Lift{Top 30%}	Overall Accuracy	No. Fields Used	Area Under Curve
	Bayesian Network 1	< 1	4,615.0	48	2.0	97.293	69	0.996

Image 2: HIV Status Model Summary

Graph	Model	Build Time (mins)	Overall Accuracy (%)	No. Fields Used
	Bayesian Network 1	< 1	99.387	69

Image 3: HIV Transmission Madadasha Model Summary

Graph	Model	Build Time (mins)	Overall Accuracy (%)	No. Fields Used
	Bayesian Network 1	< 1	98.468	70

Image 4: HIV Transmission Antardasha Model Summary

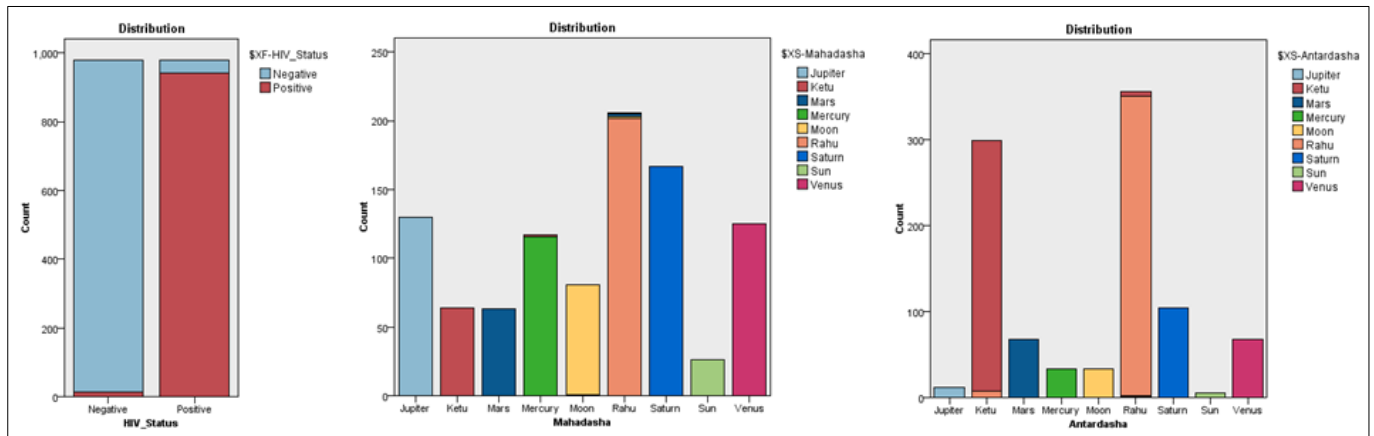


Image 5: HIV Transmission Distribution

After detailed analysis and modeling of the data, several conditions and/or combinations are found to be responsible for HIV / AIDS from medical astrology perspective. These criteria were validated from the references taken from classic books of Vedic Astrology and found to be very much evident for the HIV / AIDS transmission. The results are on the

combination of raw data analysis, chart analysis and Vimsottari Dasha analysis by considering all the astrological parameters and factors. Results are shown in the table below which indicates very high probability of getting HIV transmission when the person’s chart has below mentioned combinations:

Table 4: Result: HIV/AIDS Transmission Reasons

No.	Condition Description
1.	Afflicted Rahu in 6th, 8th, or 12th house and connected with Mars and/or Saturn
2.	Afflicted Rahu in 3rd (8th to 8th) house and connected with Mars and/or Saturn
3.	Afflicted Rahu in 11th (6th to 6th) house and connected with Mars and/or Saturn
4.	Afflicted Rahu in 7th house and connected with Mars and/or Saturn
5.	Afflicted Rahu in 1st house and connected with Mars and/or Saturn
6.	Afflicted Rahu aspects afflicted Saturn in 1st, 3rd, 7th, 11th or Trika house with Mars connection
7.	Afflicted Ketu aspects afflicted Sun in 1st, 3rd, 7th, 11th or Trika with Mars/Saturn connection
8.	Afflicted Rahu with 6th,8th, or 12th lord and also connected with Mars and/or Saturn
9.	Afflicted Rahu with 3rd (8th to 8th) lord and also connected with Mars and/or Saturn
10.	Afflicted Rahu with 11th (6th to 6th) lords and also connected with Mars and/or Saturn
11.	Rahu’s aspect on afflicted 3rd or 11th lords along with connection with Mars and/or Saturn
12.	Rahu’s aspect on afflicted 6th, 8th, or 12th lords along with connection with Mars and/or Saturn
13.	Rahu’s aspect on afflicted 1st or 7th lords along with connection with Mars and/or Saturn
14.	Rahu with afflicted retrograded Jupiter in Trika house having Mars and/or Saturn connection
15.	Rahu with afflicted retrograded Jupiter in 3rd or 11th house having Mars and/or Saturn connection
16.	Rahu in the zodiac of Aries along with Saturn or with aspect of Saturn
17.	Rahu in the zodiac of Scorpio along with Moon or with aspect of Moon
18.	Rahu in the zodiac of Capricorn along with Jupiter or with aspect of Jupiter
19.	Rahu in the zodiac of Libra along with Sun or with aspect of Sun
20.	Rahu in the zodiac of Cancer along with Mars or with aspect of Mars
21.	Rahu in the zodiac of Pisces along with Mercury or with aspect of Mercury
22.	Rahu in the zodiac of Virgo along with Venus or with aspect of Venus
23.	Mars in Nakshatra of Rahu/Ketu/Moon along with connection with Rahu and enemy planets
24.	Venus in Nakshatra of Rahu/Ketu/Mercury along with connection with Rahu and enemy planets
25.	Saturn in Nakshatra of Rahu/Ketu/Mars along with connection with Rahu and enemy planets
26.	Mercury in Nakshatra of Rahu/Ketu/Jupiter along with connection with Rahu and enemy planets
27.	Jupiter in Nakshatra of Rahu/Ketu/Saturn along with connection with Rahu and enemy planets
28.	Moon in Nakshatra of Rahu/Ketu/Mars along with connection with Rahu and enemy planets
29.	Sun in Nakshatra of Rahu/Ketu/Venus along with connection with Rahu and enemy planets
30.	Transmission phase during Vimsottari Dasha of Rahu and Rahu/Ketu/Mars
31.	Transmission phase during Vimsottari Dasha of Jupiter and Jupiter/Rahu/Ketu
32.	Transmission phase during Vimsottari Dasha of Saturn and Saturn/Rahu/Ketu
33.	Transmission phase during Vimsottari Dasha of Mercury and Mercury/Rahu/Ketu/Saturn
34.	Transmission phase during Vimsottari Dasha of Ketu and Ketu/Rahu/Mercury
35.	Transmission phase during Vimsottari Dasha of Venus and Venus/Rahu/Ketu
36.	Transmission phase during Vimsottari Dasha of Sun and Sun/Rahu/Ketu/Venus
37.	Transmission phase during Vimsottari Dasha of Moon and Moon/Rahu/Ketu/Sun
38.	Transmission phase during Vimsottari Dasha of Mars and Mars/Rahu/Ketu/Moon

Discussion

HIV / AIDS is one of the irreversible diseases. Getting infected with HIV changes one's life dramatically. They may experience a wide range of emotions like fear, loss, grief, depression, denial, anger, anxiety. No matter how reassuring the doctor, how effective drug therapies are now and will become, how minimal the physical impact of the infection, or how intellectually prepared one may be, the need for counselling and support will be great. The psychological issues faced by most persons with HIV infection revolve around uncertainty. Their future hopes and expectations, their relationships and their career, all require some adjustment in order for them to cope with their illness and lead a happy, productive life.

Precaution is the only remedy as of now to avoid getting HIV / AIDS transmission. Right precautions at the right time can minimize the chances of getting HIV / AIDS transmitted. Checking the birth chart can help getting the idea whether the person is having high or low chances of getting HIV / AIDS transmission and if there is high chance of getting HIV / AIDS transmission then which time phase is the active time phase for the transmission. Once the person has this information, they can plan for the remedies in advance. Remedies that can help to avoid getting HIV/AIDS transmission includes avoiding unprotected sex during the transmission phase, avoiding sharing needles or syringes during the transmission phase, avoiding invasive and skin-piercing procedures during the transmission phase, avoiding blood transfusion during the transmission phase, chanting of Rahu mantras and Rahu Stotra during the transmission phase, chanting of Viniyoga Mantra during the transmission phase, chanting of Rahu Kavacha Mantra during the transmission phase, using Rahu Yantra during the transmission phase, fasting on Monday and Saturday during the transmission phase, wearing Hessonite stone during the transmission phase and making offerings of mustard oil, black/blue flowers/cloths & iron.

In case the person is already diagnosed HIV/AIDS positive, remedies that can help to avoid spreading HIV/AIDS transmission along with maintaining a happy and productive life includes taking prescribed Antiretrovirals: HIV/AIDS drugs especially during Rahu / Ketu phase, testing CD4 level regularly especially during Rahu / Ketu phase, active tuberculosis screening especially during Rahu / Ketu phase, taking regular psychological support from friends, families & counselling, taking adjustments in sexual behavior especially during Rahu / Ketu phase, making others more aware of the disease, taking required vaccinations especially during Rahu / Ketu phase, taking proper treatment with Zidovudine during pregnancy, avoiding breastfeeding especially during Rahu / Ketu / Moon phase, getting immunized against diphtheria, tetanus, pertussis, and poliomyelitis, taking proper dose of measles vaccine especially during Rahu / Ketu phase, actively engaging in group therapy especially during Rahu / Ketu phase, actively engaging in workshops related to self-love, well-being & positive psychology, having proper understanding of gender and age-based factors on HIV/AIDS, and actively engaging in light exercises and Yoga.

Conclusion

The results give a clear indication from astrological perspective that that Rahu plays the most important role in HIV/AIDS transmission along with other malefic planets in combination in Trika houses. The accuracy of the HIV prediction based on native's birth chart using Bayesian

Networks Modeling for Data Mining concludes that HIV Status can be predicted with the accuracy of 97.29%; HIV transmission Mahadasha can be predicted with the accuracy of 99.38%; and HIV Transmission Antardasha can be predicted with the accuracy of 98.46%. The implication is that every person must check HIV/AIDS parameter in their chart from astrological perspective to avoid this irreversible disease. This could be a groundbreaking thesis in the field of Medical Astrology which could become a must checklist for all human beings in future. A new sutra in the field of medical astrology i.e., KIRAN sutra is being identified to detect HIV/AIDS impact from the native's chart. The KIRAN sutra can be understood as K (Ketu's position impact); I (Injurious houses impact); R (Rahu's position impact); A (Afflicted planets availability and/or aspects impact); and N (Nakshatra's negativity impact).

For marriage, match-making is done in order to check the compatibility of the two persons. During this match-making itself if the HIV/AIDS checklist is being checked, there is very high possibility to avoid this transmission from one partner to another. If the chart shows the high possibility of HIV/AIDS transmission, the partner could have gone through his/her HIV test before getting married. This research paper is supporting the One Health Program under World Health Organization – Health Division to reach globally. One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems. With the help of WHO, this HIV predication model can reach globally and we can even further fine-tune the model for even higher accuracy. This paper is going to open a new perspective of research in the field of medical astrology.

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