

## **Matrix Rhythm Therapy for Intramedullary ependymoma incidence in Type 2 Diabetes Mellitus**

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### **Background**

Intramedullary ependymomas constitute the most frequent type of intramedullary tumor. On the basis of epidemiological evidence among non-diabetic individuals, as well as recent studies examining the effects of different types of diabetes treatment on cancer risks, we conclude that chronic elevations in fasting and non-fasting blood levels of glucose and/or insulin are plausible independent risk factors for cancer. Emerging evidence have clearly pointed out towards the role of extracellular matrix (ECM) during tumor progression and therapy resistance.

According to cybernetic model tumors are the consequences of phasic transition due to processes of adaptation to a chronically altered milieu or function, the ultimate result of which is the loss of temporal-rhythmic organization, i.e. chaotic mutation of cellular dynamics. This hints that regeneration of matrix is the key to treatment of tumor which is the basic concept of Matrix Rhythm Therapy.

### **Purpose of the Study**

To the best of author's knowledge this report represents the first to provide a detailed effect of Matrix therapy on chronic Type2 diabetic patient suffering from complications of both diabetes and ependymoma.

**Study design:** Case report.

### **Methods**

A 46 year old male reported on June 2013, chief complains of all four limb weakness, trunk weakness, multiple pressure sores, polydipsia, sensory deficits, shoulder joint pain, breathing difficulties, lethargy, bladder and bowel problems since 21 months. He had positive family history of type 2 Diabetes mellitus and the patient was diagnosed to suffer from the same at the age of 25 years and since then he had been on oral medications. In March 2006, MRI Cervical -Dorsal spine revealed Syringobulbia and syringomyelia of cervical-dorsal cord upto D6 level. August 2006 CEMRI revealed Cervico medullary ependymoma with secondary syrinx. On May 2007, Post-operative and Post radiotherapy MRI study revealed tumor extension upto D5 level rather than syrinx. From 2007 to 2011 patient had undergone two surgical procedures and regular radiotherapy but had no functional deficits.

In September 2011 all four limb and trunk movement stopped with MRI revealing residual existence of tumor. Since then patient had been completely bed ridden. Patient did not take any Physical therapy or Matrix therapy during the entire course till January 2014. Matrix rhythm therapy sessions was started on 26th July 2013 in adjunct to physical therapy. Dosage of matrix rhythm therapy - daily one hour from 6th July till 19th October 2013.

**Result**

Glucose level monitoring during the entire course of therapy revealed a significant lowering in blood glucose level, moderate level sensory regain, no breathing problems, healed ulcers, decreased fatigue level. Signs of tumor resolutions are clear.

**Conclusion**

Matrix Rhythms Therapy is one the successful adjuncts to physical therapy in treating various complications related to Type 2 Diabetes mellitus and Intra-medullary Ependymoma.

Data Report		
Date	Time	RBS (mg/dl)
24/06/2013 to 05/07/2013		{MEAN} 250
06/07/2013 to 22/09/2013		{MEAN} 180
09/08/2013	12:56 pm	133
29/08/2013	09:55 pm	150
02/09/2013	03:44 pm	95
04/09/2013	06:15 pm	150
06/09/2013	07:28 pm	50
07/09/2013	02:05 pm	180
08/09/2013	02:19 pm	194
10/09/2013	09:29 am	180
14/09/2013	01:58 pm	200
14/09/2013	06:52 pm	158
15/09/2013	02:46 pm	151
18/09/2013	07:14 am	178
19/09/2013	07:31 am	155
20/09/2013	07:11 am	195
21/09/2013	07:30 am	130
23/09/2013	07:48 am	110
24/09/2013	08:56 am	80
26/09/2013	07:59 am	130
26/09/2013	02:03 pm	140
26/09/2013	07:03 pm	109
27/09/2013	07:35 am	230
28/09/2013	02:38 pm	230
28/09/2013	10:01 pm	150
01/10/2013	10:15 am	60
01/10/2013	01:56 pm	184
02/10/2013	06:13 pm	160
06/10/2013	02:49 pm	160
07/10/2013	02:07 pm	170
11/10/2013	01:56 pm	160
18/10/2013	02:30 pm	180
19/10/2013 till date {Mean}		140

Figure 1: DATA

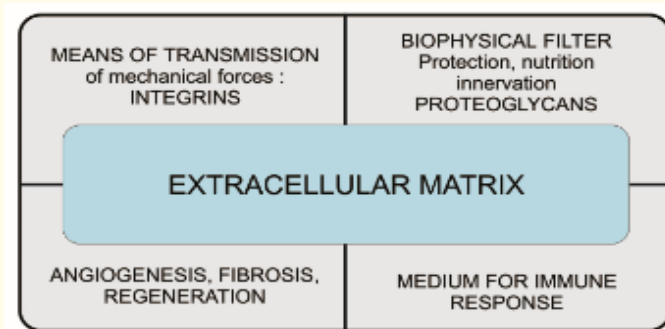


Figure 2: Functional Aspects of the ECM

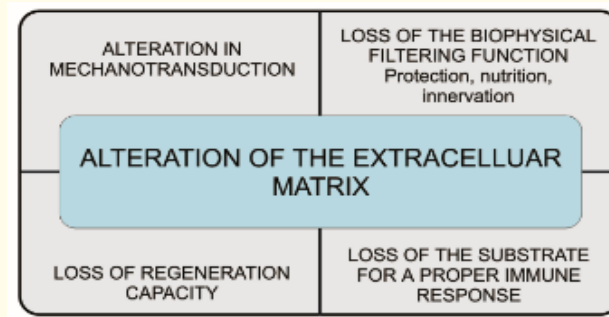


Figure 3: Physiopathology of the ECM

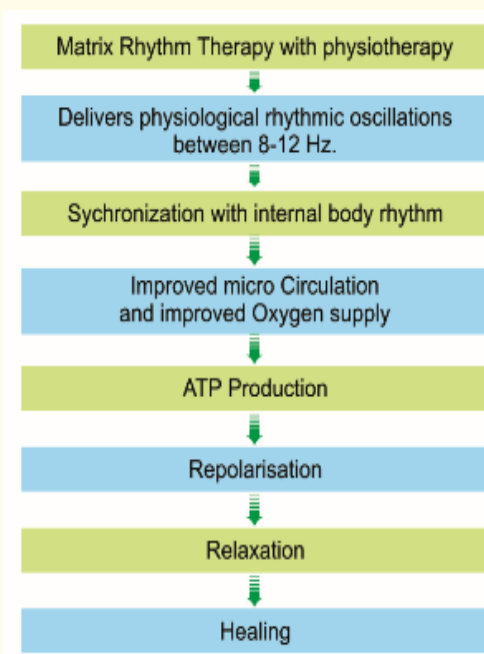


Figure 4: Mechanism of Healing

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