PROGNOSTICATING CANCER WITH STOCHASTIC MODELS

- The essence of prognosis is interpreting pathological, cellular and CNS triggers in the applications of oncological investigations
- Primary data comes in from diverse resources and testing protocols
- Mathematical construct of the data can lead to stochastic processes of predicting outcomes or events in the progression of a disease in the framework of oncological interpretation

CONSTRUCT

DELINEATING THE ESSENCE OF THE CONSTRUCT

- Data partitioning
- Finding the empirical links as per domain interpretation
- Studying the natural entropy in the framework

DATA PARTITIONING

- The driving elements for diagnostic pathways are pathological strengths, blood metabolism, glucose metabolism and relative muscle metabolism in the order of priority
- Blood perfusion and the cerebral blood volume as well as the coefficient of resistance for referential opacity are the other parameters that need to be isolated for data interpretation
- Cavity organs like cardiac, pulmonary and renal functions as well as hormonal profiles are derivatives of the CNS triggers and the principal factors outlined above

DATA STRUCTURING AND ENTROPY EVALUATION

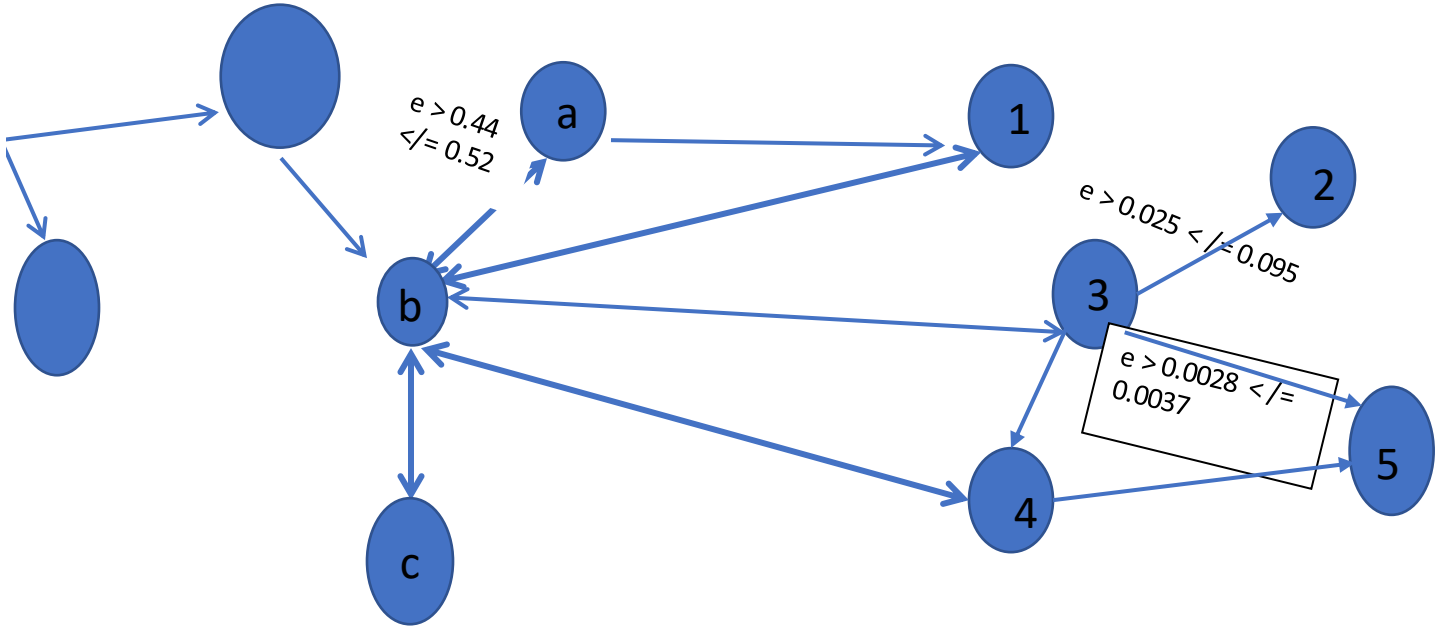
$\lim_{(n)\to\infty} \log P(Bs^1) / \log P(Bs) \leftrightarrow N \,.\, H(Bs\,,\, D) + N.\, H(Bs^1\,,\, D) \leftrightarrow (k' \leftrightarrow k).\, f(N).$

Bs = Ideal states of blood and glucose metabolism, optimized perfusion and minimized cellular opacity in the CNS whilst Bs^1 identified the actual states.

N is the state of progression while H is the stochastic derivative of the probability function of cytoplasmic mutation. The progression of the disease is delineated in the equation and increase in entropy shall be a powerful indicator of the same. The subsequent efforts of multiple factors are directed to minimize entropy and bring in states of regression.

a – Blood and glucose metabolism as a causal element
b – Blood perfusion quality in the CNS and the dielectric strength in the CNS
c – Muscle metabolism as a function of CNS controls and nerve conductivity velocity

DATA STRUCTURING



1. Influence cluster with minimized clinical entropy of data scatter in time series -1: Serum pressure and blood metabolism

NODE DEPTH -3

CLUSTER STRENGTH – 0.83 on logarithmic smoothing and 30,000 epochs of iterations

a) The CBV – cerebral blood volumes have been substantially close to normal levels of an adult thereby resulting in excellent blood metabolism. The serum pressure and adequate volumes do increase the specific cellular surface for oxygenation resulting in progressive angiogenesis as well as the onset of putrefying phenomena in the mutants.

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b) The environ of qualitatively superior blood chemistry and metabolism creates decay of the mutants. Cytoplasmic drying is one of the immediate progression as a consequence of the improved blood metabolism. New blood cell formation disrupts the activity of the mutants and the influences of the lesions.

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c) The hyperbaric oxygen therapy that interspaced the timelines between successive chemotherapy administration protocols improved angiogenesis and created the microsystem for potentially drying out the cytoplasm of the mutants through rapid oxygenation. Radiation necrosis is precluded in the right extent of hyperbaric oxygenation. **The drug administration is primarily inhibitive of angiogenesis and consequently the chemo regime is complemented positively by the hyperbaric oxygenation cycles. The fundamental counteractive nature of the two processes has possibly inadvertently led to the cytoplasmic drying of the lesions.**

ENTROPY OF DATA SCATTER - KEY DECISION FACTORS FOR CLINICAL PROGNOSIS

a) ADC –Apparent Diffusion Constant in perfusion MRI shall elicit the vital information on a host of cells having deviations > 5% from the baseline cytoplasmic mass of healthy cells. Seminal decisions can be designed around the information on the relative opacity or degrees of softness of the potential mutants in the cranial as well as hypothalamus and occipital maps,

ENTROPY OF DATA SCATTER - KEY DECISION FACTORS FOR CLINICAL PROGNOSIS

b) The relative flow properties between the air and the blood in the cerebral zones shall be captured in the fMRI and establish the primary perfusion conditions of the specific blood cover into the cellular spaces. Pathological conditions of higher blood perfusion and consequent increased specific blood volume as compared to the air permeability will progressively have multiplier effects of rapid oxygenation and resultant degeneration of mutants. The lesion hardening or opacity is precluded owing to dominantly favorable pathological states for a sustained cyclic time series within the somatic reference framework of the patient.

2. Influence cluster -2: Biochemical states for promoting irradiation and chemotherapy efficacy

NODE – 4

CLUSTER STRENGTH – 0.718 on logarithmic smoothing and epochs – 45,000 for iterations

Food regime administered on the patient has had a profound effect in restoring the pathological states of the patient described in the preceding section.

The underlying impact is to generate the food polymers to effectively induce the release of free radicals in the blood for promoting rapid exhaustion of the protein VGEF and consequent assimilation of the radioactivity within the plasma composition of the patient

3. Influence cluster -3: Quantum energy transmission and the impact on progression of healing; the emerging areas of research and study models

NODE-4

CLUSTER STRENGTH – 0.718 on logarithmic smoothing and epochs – 45,000 for iterations

The universal life force is the nucleus of the unified energy field that can be harnessed into concentrated conduits for transmission into potentially weakened psycho-somatic complex substrates for changes in orientation of the sub-atomic energy particles. The domain is yet fertile and emerging with the awaited onset of structural forays in scientific research and implementation derivatives for acceptance in the formal medical stream of studies.

4. Influence cluster – 4: Preparation of the tissue substrate as well as tissue barrier for high momentum carbon ion therapy

NODE-5

CLUSTER STRENGTH – 0.619 on logarithmic smoothing and 75,000 epochs for iterations

Irradiation weakens the cytoplasmic strength of the normal cells substantially thereby rendering the tissue substrates and the tissue barrier incongruent with the requirements for ion beams to traverse with elevated momentum and velocities.

Validation of the assertion can be defined through the detailed analysis of the functional MRI data.

5. Influence cluster -5: Colliding particle dynamics for optimized outcomes

CLUSTER STRENGTH – 0.479 on logarithmic smoothing and 100,000 epochs for iterations

Sizing particle dynamics boils down to optimizing the dosage parameters for the impact analysis on collision. The momentum of the colliding particles is governed by the following technical considerations:

5. Influence cluster -5: Colliding particle dynamics for optimized outcomes

CLUSTER STRENGTH – 0.479 on logarithmic smoothing and 100,000 epochs for iterations

a) Particle velocity as functionally determined by the speed of light **(h)**

b) The ionic mass in the nucleus of the carbon particle **(m_i)** and the dielectric field **(f)** as determined by the charge concentration

c) The frictional resistance of the tissue mass in the pathways of the particle mass as defined by **(e)**

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d) The momentum equation for the particle mass shall be b = energy as defined at Bragg's peak as functionally defined by the equation:

$$f(x) = a_0 + \sum_{n=1}^{\infty} \left(a_n \cos \frac{n\pi x}{L} + b_n \sin \frac{n\pi x}{L} \right)$$

Herein a_0 is a function of = ∫∫∫ (m_i f) * (h) with domain constraints as (e). This equation is a measure of the particle entropy (Factor -1) in the tissue field and shall significantly shape the impact amplitude and consequently the energy dissipated on colliding impact.

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(e). This equation is a measure of the particle entropy (Factor -1) in the tissue field and shall significantly shape the impact amplitude and consequently the energy dissipated on colliding impact.

The L is the effective distance traversed across the tissue substrate (Factor -2)

n is the periodicity of each particle (Factor – 3) and

π is the phase angle of the particle (Factor – 4)

Function (L,n, π) is the energy dissipated in the tissue field (Factor – 5)

GREY AREAS FOR PARAMETRIC INCLUSION -1

- The dielectric field in the CNS is an important element of parametric definition in the mathematical models.
- Mapping the field strength across the cerebellum, the hypothalamus and the occipital regions as well as the grey matter in the cerebral cavity is of fundamental importance.
- Correlating the electrical field strength with the properties of perfusion and the analysis of cell opacity are the key determinants

GREY AREAS FOR PARAMETRIC INCLUSION -2

- (NCV)Nerve conductivity in the aspects of signaling velocity define the states of therapeutic treatment as well as the progression of the disease
- Parametric determinant of NCV is linked to progression of cerebral oedema and compressive load of potential lesions
- Correlation of the NCV parameter with the aspects of the metabolism and perfusion are fundamental approaches

CURRENT STATES OF THE RESEARCH AND THE PROMISE

1. Actively pursuing clinical trials and protocols for clusters of patients having similar pathological and metabolic data
2. Perfusion and CBV are the major therapeutic outcomes that shall be the nucleus of observations and subsequent clinical decisions
3. Hope for breakthroughs in oncology within a 5-year span from here on in the aspects of the treatment protocols, objective evaluation of the therapeutic administration and potential solution pathways are the major elements of the