

Dichloroacetate as Viable Metabolic Adjuvant Cancer Therapy

Strong *in vivo* Human Evidence

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TOTT Conference Nov 2017

OVERVIEW

- DCA INHIBITS PDK (PDH KINASE) TO SHIFT CANCER CELLS FROM GLYCOLYSIS TO GLUCOSE OXIDATION (OX. PHOS.)
- DCA REDUCES MITOCHONDRIAL MEMBRANE POTENTIAL
- DCA TRIGGERS APOPTOSIS
- DCA IS ORALLY HIGHLY BIOAVAILABLE, MINIMAL TOXICITY
- DCA HAS BEEN STUDIED IN PHASE II TRIALS FOR CONGENITAL LACTIC ACIDOSIS
- MULTIPLE IN VITRO STUDIES SHOW DCA IS A BROAD SPECTRUM ANTINEOPLASTIC
- RAPID TRANSLATION TO HUMAN USE IN ONCOLOGY IS LEGAL AND POSSIBLE

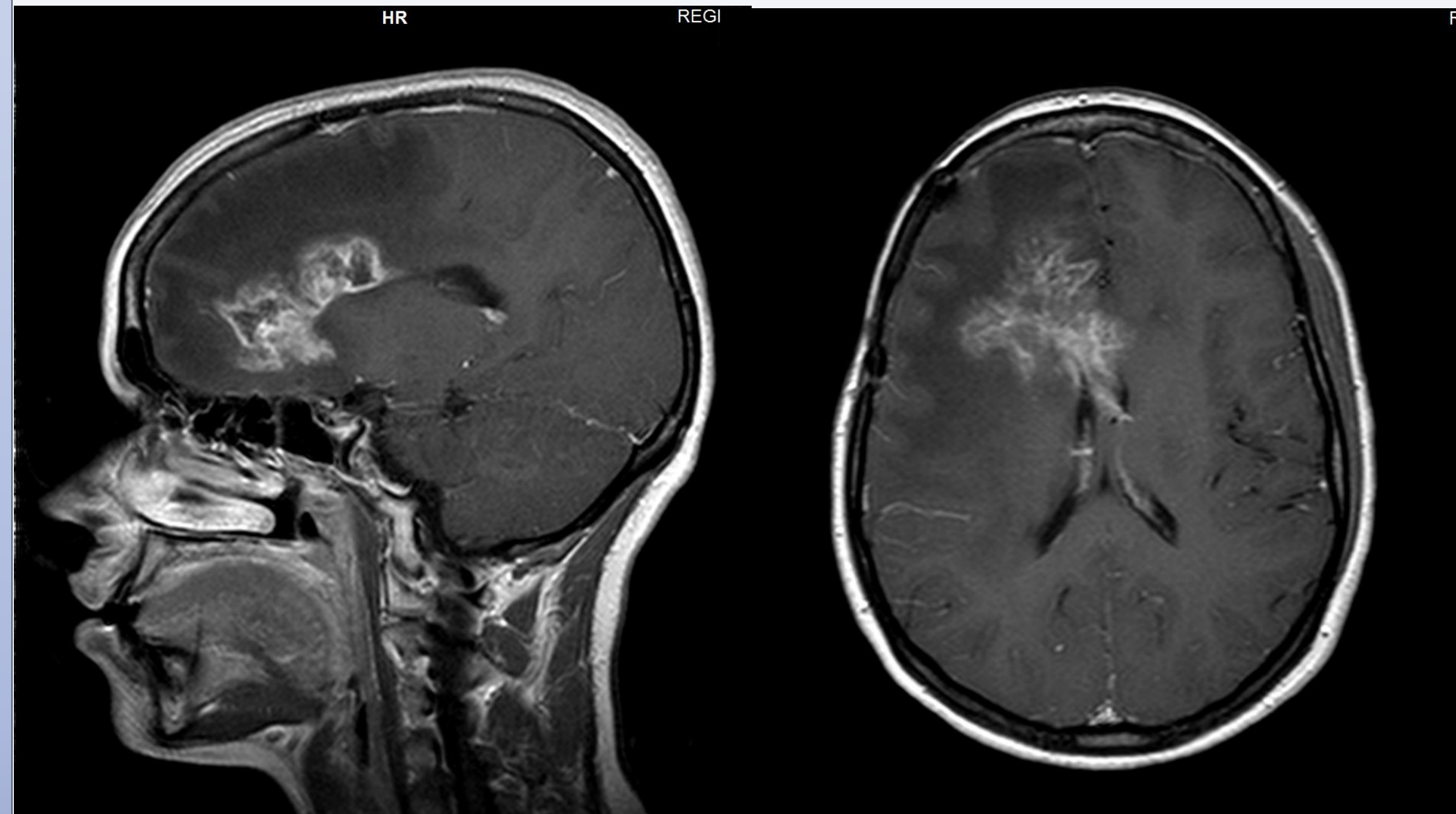
CASE REPORT

- 31 YEAR OLD FEMALE
- RIGHT FRONTOTEMPORAL GRADE III ASTROCYTOMA TRANSFORMED TO GLIOBLASTOMA
- CRANIOTOMY / DEBULKING
- STANDARD COURSE OF CHEMO-RADIOTHERAPY
- DECLINED ADJUVANT CHEMOTHERAPY WITH TEMOZOLOMIDE
- REQUESTED DCA

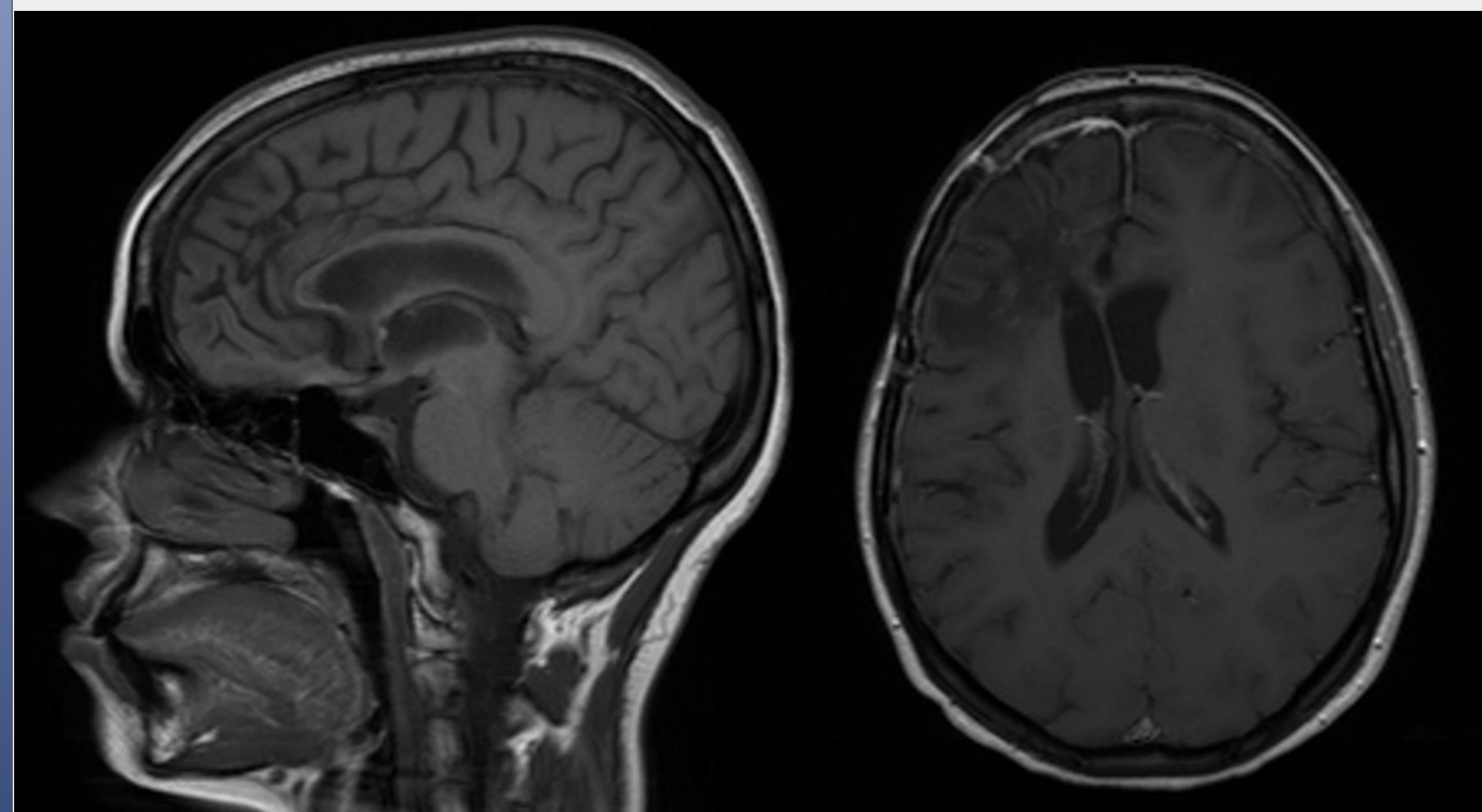
- ORAL DCA STARTED 500MG TID (=19MG/KG/DAY)
- R-ALPHA LIPOIC ACID 150MG TID
- BENFOTIAMIME (LIPID SOLUBLE VITAMIN B1) 80MG BID
- PANTOPRAZOLE 40MG DAILY
- OTHER MEDS: DILANTIN, KEPPRA, DEX, EFFEXOR, TYLENOL #3 AND MORPHINE PRN
- ROUTINE BLOODWORK NORMAL
- AST/ALT/GGT MONITORED

RESULTS

- MRI SHOWED SIGNIFICANT PROGRESSION / EDEMA
- RADIOLOGIST REPORT “DEFINITE GROWTH”



- PATIENT ASYMPTOMATIC
- TUMOUR BOARD CONVENED: “PSEUDOPROGRESSION”
- COMPLETED 4 CYCLES OF DCA 2 WKS ON/ 1WK OFF (3 MO)
- DCA STOPPED, NO FURTHER CONVENTIONAL CANCER THERAPY
- 3 YEARS LATER:



- ALIVE AND WELL 8 YEARS LATER!

CONCLUSIONS

- DCA IS A VIABLE NON-TOXIC THERAPY FOR MALIGNANT BRAIN TUMOURS AS AN ADJUVANT TO CHEMORADIATION
- DCA CAN INDUCE LONG-TERM REMISSION OR POSSIBLE CURE OF DEADLY CANCERS THAT ARE INCURABLE WITH CONVENTIONAL THERAPY

AUTHOR BIO

- Completed MD in 1992 certified in Family Medicine in 1994 (University of Toronto)
- Primary practice for the last 25 years has consisted of palliative medicine with a focus on cancer
- Founded the first private integrated cancer center of its kind in Canada (Medicor Cancer Centres) in 2006
- Since 2007, has researched and successfully used several non-toxic off-label cancer therapies
- Over 2000 cancer patients treated with DCA
- 5 human DCA publications in peer-reviewed journals

ACKNOWLEDGEMENTS AND CONTACT

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