

Discussion.

About ten years ago my research was directed towards the solubilization of steroids. I succeeded in solubilizing cortisone acetate for the purpose of using it in synergistic action with broad spectrum antibiotics for the treatment of infectious disease, in particular, infectious hepatitis.

In order to accelerate liver repair and to stop the immune biological reaction, another process was designed to solubilize liver tissue and to speed up liver repair and to block the auto immune biological reaction that accompanied the disease.

Again, tissues such as liver, placenta and bone marrow were exposed to sound blasting, suspended in carbowaxes and the precipitate obtained in ultracentrifugation parenterally injected.

In April 1956 when faced by a severe case of Multiple Sclerosis with paralysis of the left arm and leg, I used this enzyme suspension for the first time in the treatment of this disease. An encouraging response with absence of unfavourable reaction constituted the stimulus for subsequent investigation.

To block and reconstruct the demyelinated areas the whole heterologous nerve tissue still retaining the original enzymes was used.

the immune biological reaction

To extend ~~this action~~, homogenates of bone marrow, placenta and brain were added. This process, however, proved more compatible when applied in a suspension of 70% sorbital instead of carbowax.

The therapeutically highly active material has not shown any antigenic reaction when applied intravenously or intramuscularly. Several laboratory tests were made to elucidate this observation, and the following facts were the result of the observation.

1 Disruption of cell structure. 2. decrease particle size, through supersonic disintegration in concentrated sorbitol. 3. Depolarization of the cell components as shown in Redox potential. 4. Restoration of Redox potential by exposure to radar 500 to 1000 megs. or placing it into the field of a permanent magnet. Separate tests with Rennin (Milwaukee Standard) exposure to supersonic disintegration non impaired in sorbitol medium.

Conclusions:

~~Thamhaanacama~~ Depolarized comminuted cell components keep their bio chemical identity and preserve their properties after disruption of their structures. When injected in this form show therapeutic response in chronic and terminal cases of Multiple Sclerosis.

Similar to the reorientation and organ specific growth of mixed monolayer cell culture when injected into an animal host these cell constituents specifically attractive by the damaged nerve cells (similar to the radar experiment) can enter into regenerative metabolic action. Material processed from other than nerve cells, placenta and bone marrow () show similar to the observation made by of Lumsden that reported a factor in this EAE of adjuvant suspension prepared from other organs other than brain and the protective that prevent the EAE production by homologous nerve tissue when hetero

logous nerve tissue was given as an adjuvant ³ This protective element contained was only ~~highlighted~~ in the heterologic nerve cells emulsion and ~~defined~~ passive transfer ~~with~~ ~~through~~ ~~serum~~ ~~from~~ ~~treated~~ ~~or~~ ~~untreated~~ ~~animals~~. Cabat: Wolf & Bezer.

All these experimental observations give further explanation for the ~~immediate~~ immediate response that sometimes could be observed even after the first injections, whereas the process free from antigenic reaction cause continuous improvement and the absence of any progress of the disease symptoms in the observed cases, as protective action similar to the observations mentioned in animal experiments from material other than nerve and from heterologous nerve cell itself may block the immune biological and ~~autoimmune~~ autoimmune biological destruction and permit ~~assimilation and regeneration~~ assimilation and regeneration through the therapy and the material used.

The therapeutic results sometimes observed already observed after a few injections may represent a regenerative process using the cell constituent of all biological material used are acceptable through the processing, absence of structural identity, depolarization and protected by the not yet identified component of heterologic nerve cell material and the suppression furthermore identified in the research showing that. Addition of cell ~~sum~~ ~~material~~ material of other organs not of nerve cell origin simultaneously applied will account the refractoriness to the production of EAE, a reaction that strangely enough, is now largely considered as rather organ specific and not specie specific

SUMMARY OF CASE HISTORIES.

The report includes 63 patients. Twenty three of these patients had had the disease from 2 to 10 years. Thirty three patients had had the disease ~~more~~ ten years and over and seventeen patients for more than 20 years..

Seventeen of these patients were in wheel chairs
Fifteen were walking with support.

Thirty three were ambulatory.

Of these wheel chair cases: 6 were reported as showing a fair response and 6 as showing a good response. In 2 cases there was no further progress of the disease but no appreciable improvement.

In this group the response to treatment showed that the lower extremities in many cases were paralyzed for more than ~~five~~ five to seven years, could be actively moved again and in the group classified as good, the patient could begin to walk with support.

The same gain in mobility and active movements was noted in the use of the affected upper extremities. ~~was improved in many cases in which the patient had lost bladder control.~~ This applied to the regaining of improvement of lost bladder control.

In the observation of 4 cases in which fundus examination and optical pallor could be ascertained from examinations of qualified institutions ten years ago and more: in one case there was a complete disappearance of the TP: in 2 cases there was a definite improvement: in one case, an arrest of this condition as compared with findings made 20 years previously.

Case Histories. Continued.

In evaluating these case histories: 7 patients were being treated while residing outside of the U.S.A. 11 patients were being evaluated from their own physicians report in other part of the United States. The total response to the treatment of these 14 patients was:

In our direct observation which ~~covers~~ covers patients from April 1, 1956 to January 15, 1960 and since that time the number of patients steadily increases, including 12 wheel chair patients, 16 walking with support and 23 ambulatory. Of these patients, 6 were rated good, 6 fair 2 were not evaluated because of no appreciable progress but there was no increase in the disease.

The following table show the number of patients, the duration of the disease and the length of time of treatment:

Under 5 years:	response:	5	excellent .
		6	Good
		2	Fair
5 years to 9 years		2	excellent
		4	Good
		1	Fair
10 years to 14 years		2	Excellent
		4	Good
		1	Fair
15 to 19 years		3	Excellent
		2	Good
		1	Fair
Over 20 years		1	Excellent
		2	Good
		3	Fair.

Under observation for approximately 1 year: 18 cases. 1 to 2 years: 13 cases. 2 to 3 years, 5 cases. 3 to 4 years, 3 cases

In the nature of the project that out of the cases under direct treatment, one half, or almost 50th were partially incapacitated on in the wheel chair stage the rest were moderately incapacitated.

In the research of Cancer therapy a great number of investigators tried to find new ways to revive experimental and therapeutic projects that were based on the results of observations dealing with immune biological and auto immune biological response to the malignant process.

Observations of this treatment and its relation to the current Multiple Sclerosis project and observations in the production of EAE have led me to re evaluate research work made 7 years ago.

At that time Dr. Lionel Auster made the following observations: The results in his opinion exceeded any expectations as compared with previous observations. The absence of any exacerbation following the improvement.

He was provided with ~~EE~~ injectable material. A. Patients own tumour cells in highly concentrated sodium salicylate after filtration to remove undissolved material. B. Serum from guinea pigs 24 days after they had been injected intra cardially with these dissolved tumour cells.

All patients were in the terminal stage with wide spread metastases. Most important was the absence of any local or systemic reaction to the injection of material type one and two.

In the light of the present publication in which autologous cancer material, in the majority of cases, has created local tumour growth this observation shows that even in malignancy our comminuted material solubilized and deprived of structural identity with a positive therapeutic response and not followed by an excessive exacerbation, apparently shows a completely new type of response which is not anti genic in nature