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NAPROTECHNOLOGY (NATURAL PROCREATIVE TECHNOLOGY) - A MULTIFACTORIAL APPROACH TO THE CHRONIC PROBLEM OF INFERTILITY

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Key words – *Infertility, Infertile couples, NPT, NaProTechnology, IVF, In Vitro Fertilisation, ART, Assisted Reproductive Technology, Cohort Study.*

Summary

Description: Infertility is usually a consequence of multiple chronic conditions rather than a single acute condition. We propose that it is erroneous to apply acute medical interventions to a condition that is chronic in nature.

Method: Retrospective analysis of 3 case studies which demonstrate the multifactorial and chronic nature of infertility that were previously managed unsuccessfully with acute intervention using IVF (in Vitro Fertilisation) or ART (Assisted Reproductive Technology).

Results: Demonstration of the multifactorial approach and 3 successful singleton live births using NPT (Natural Procreative Technology or NaProTechnology).

Conclusion: Infertility can be treated successfully with a multifactorial approach which takes into account the chronic nature of infertility and targets treatment to manage multiple factors responsible for the condition.

Discussion: Infertility is not a diagnosis but is often the expression of several underlying ill health conditions which if diagnosed and treated correctly will result in restoration of normal reproductive function. Physicians ought to consider broader diagnostic possibilities in their evaluation of infertile couples. A multifactorial treatment strategy for the chronic condition of infertility may be more effective than the widespread acute strategy employed by ART. Further study is required to investigate this possibility in more detail. Future studies looking at NPT and ART outcomes must be cohort studies comparing populations with similar patient characteristics.

DESCRIPTION

In this paper we describe the concept of a multifactorial approach to the chronic problem of infertility using Natural Procreative Technology (NaProTechnology or NPT) [1, 2, 3] in a specialist fertility clinic in Galway, Ireland. Infertility meets the criteria to be classified as a chronic illness. The onset of infertility is a gradual process over time, it persists and usually does not resolve spontaneously, it has multiple possible causes and in our experience responds more favourably to multiple sustained interventions – as chronic illnesses do. See Fig 1. Acute illnesses by contrast have a sudden onset, are of short duration, often resolve spontaneously, have single or few causes and are often cured by a single intervention. This classification does not accurately describe most cases of infertility. This paper describes an approach to infertility that is consistent with managing it as a chro-

Acute illness	Chronic illness
Sudden Onset	Gradual Onset
Short Duration	Long Duration
May resolve spontaneously	Rarely resolve Spontaneously
Single or few causes	Usually multiple causes
Cured by single intervention	Outcome improved by multiple sustained interventions

Fig. 1

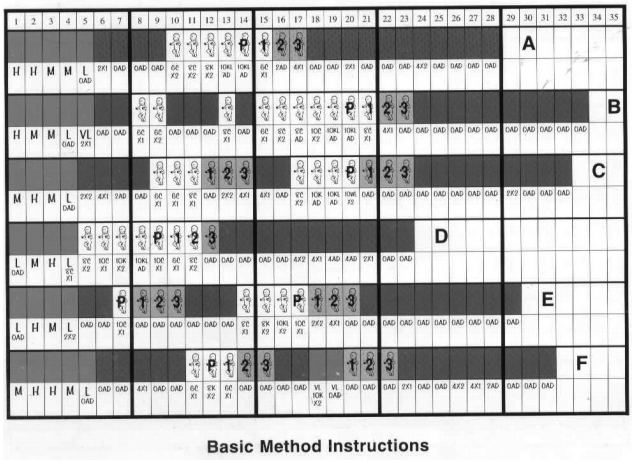

Fig 2. a – Normal Charting Patterns

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nic illness rather than the acute treatment strategy applied with ART. NPT employs a system of evaluation and treatment strategies that allow the physician to identify a broader range of diagnostic possibilities which may be contributing to the couple's infertility. Depending on the number of diagnoses made, several treatment strategies may be recommended concurrently to restore normal reproductive function. When normal function is restored treatment is continued until the couple conceive or until they have 12 optimised cycles of treatment, which can take 18 to 20 months to achieve. A key component to the evaluation process is for the woman to record her fertility cycle with the Creighton Model FertilityCare system [4, 5] (ure 2 a&b). This system is a standardised modification of the Billings Ovulation method that precisely records the events of the menstrual cycle including the bleeding pattern, quality of cervical mucus flow, timing of ovulation and length of the luteal phase of the cycle. The physician uses the Creighton Model FertilityCare System (CrMS) to time investigations such as ultrasound follicle tracking and to take blood tests for progesterone and oestradiol in the luteal phase of the menstrual cycle as well as routine blood tests on day 3 of the menstrual cycle. If considered necessary, the woman is referred for Laparoscopy and Hysteroscopy and the man is advised to have a semen analysis using the Male Factor Pak [6, 7], enabling collection of the sample during regular intercourse. Generally it takes 2 to 3 cycles to conduct the charting, timed blood tests and ultrasound in order to establish a list of diagnoses that are contributing to the fertility problem (Phase 1- evaluation, fig. 3). For a list of possible diagnoses see fig 3. When a detailed history and thorough examination are completed treatment is introduced in a targeted fashion to improve the couple's overall health and to restore a normal appearance to the woman's fertility cycle as identified by the woman's symptoms, the Creighton Model FertilityCare System (CrMS), and targeted hormonal monitoring (once per cycle in the mid-luteal phase). Treatment also includes general measures to optimize health, such as appropriate diet, exercise, and stress reduction. This phase takes an additional 2 to 3 cycles (Phase 2- correction, fig. 3). Finally when the cycle is normal in appearance and both the male and female are in good health we enter the final phase which can last from 1 to 12 cycles, depending on how quickly conception occurs (Phase 3– counting, fig.3). The CrMS is central to the entire process to assist with the investigations, diagnosis and ongoing treatment strategies we employ. In our experience the CrMS cannot be substituted adequately with the Billings ovulation method or symptothermal method. This is because the detailed observations, precise standardised descriptions, and quantitative mucus score from the CrMS are necessary to evaluate the cycle initially and to monitor the response to treatment. During phase 3 the woman's health continues to improve over time and because of additional treatments that may be introduced as treatment progresses. If the couple do not conceive after 12 optimised cycles, treatment is deemed ineffective and discontinued. We believe this approach incorporates the best available elements for management of a chronic, multifactorial reproductive disorder. We propose to demonstrate with the help of 3 case studies that it is erroneous to apply acute medical interventions for a condition that is chronic in nature.

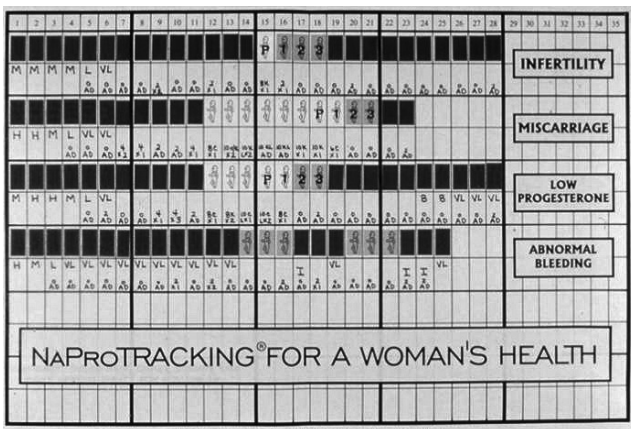


Fig 2 b. – Abnormal (Sub-fertile) Charting Patterns

Phase 1 - Investigations	Phase 2 - Correction	Phase 3 - Counting
2- 3 months	2-3 months	1- 12 months

Fig. 3

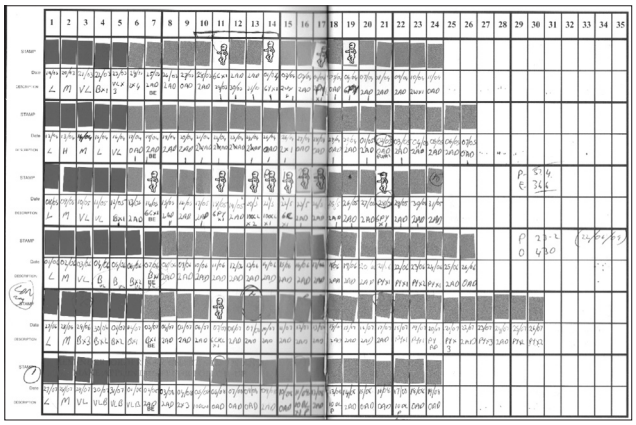
Hormonal	Ultrasound	Surgical	Other
Low Progesterone	Immature follicle	Endometriosis	Limited (hostile) Mucus
Low Oestradiol	Partial rupture	Pelvic Adhesions	Adrenal Fatigue*
Poor Follicular Function	Luteinised unruptured follicle	Blocked Fallopian Tubes	Chronic Endometritis
Corpus Luteum Insufficiency	Delayed Rupture	Hydrosalpinx	Endorphin Deficiency*
Polycystic Ovaries	Afollicularism	Fibroid	Food Intolerance
Reduced ovarian reserve	Absent Cumulus Oopherous	Polyp	Nutritional Deficiency
Hypothyroidism		Uterine Septum	Immune dysfunction

Fig. 4. Possible Diagnoses from NaProTechnology Evaluation

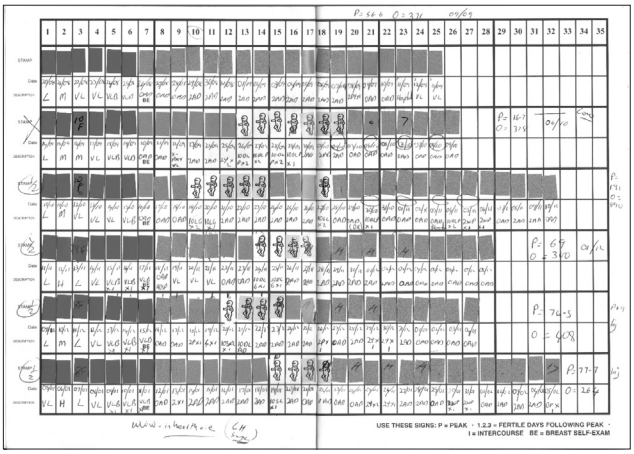
Although these diagnoses are hormonally mediated, at least in part, the diagnosis and management is not based on direct hormonal testing at this time.

METHOD

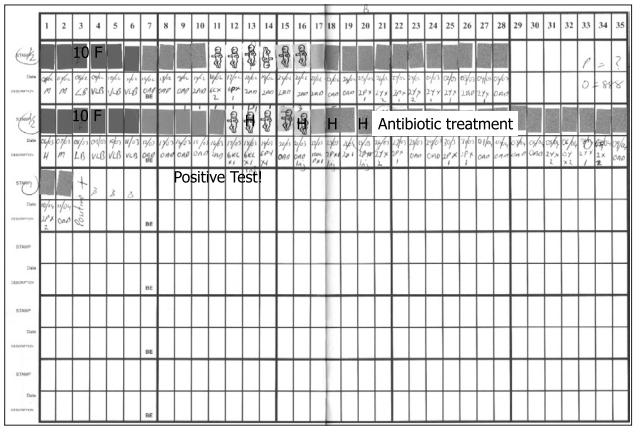
Retrospective analysis of 3 case studies which demonstrate the multifactorial and chronic nature of



Patient Case A – Chart 1



Patient Case A – Chart 2



Patient Case A – Chart 3 – Positive Pregnancy Test

infertility that were previously managed unsuccessfully with acute intervention using IVF (in Vitro Fertilisation) or ART (Assisted Reproductive Technology).

Case A.

Gravida 0 Para 0, Female aged 41, Male aged 40, trying to conceive for 2 years, Unexplained infertility, 3 failed IUI and 2 failed IVF.

This couple presented to our clinic for fertility treatment in March 2009 with a previous history of primary infertility and unexplained infertility. They had a normal laparoscopy in December 2007 and semen analysis was normal. Endometrium was noted to be thin (6mm on day 10 of the cycle) but otherwise no explanation could be found for infertility. They did not have a prior trial of ovulation induction with clomiphene, but previously had 3 cycles of Intrauterine Insemination, stimulated with Menopur (FSH/LH) and mid cycle HCG without success before having their first attempt with IVF in August 2008, when the female was 40 years old. 10 eggs were retrieved, 5 fertilised in a satisfactory manner and 3 good quality embryos were transferred on day 3 without success. The process was repeated 7 months later in March 2009 with a similar response and no success despite transferring 3 good quality embryos when she was now aged 41. At this point the couple presented to our clinic for treatment. The process of evaluation and treatment was explained to the couple. Clinically the female had symptoms consistent with endorphin deficiency and this was treated with low dose Naltrexone 2mg nightly (fast release compounded preparation). The couple tracked the female fertility cycle with the CrMS and arranged for timed blood tests on day 3 of the cycle for FSH, LH, TSH, Prolactin, Haemoglobin, Vitamin B12, Rubella antibodies. These were all normal. A blood test for IgG food antibodies showed elevated levels of antibodies for egg yolk and soya bean which were eliminated from the diet [8]. Blood tests on day 7 after ovulation showed low progesterone – 23nmol/l and normal Oestradiol 430pmol/l. We commenced treatment with Femara (Letrozole 2.5mg) – settling on a dose of 25mg (10 tablets all together before breakfast) on day 3 of the cycle. In addition she had HCG 5000 IU mid cycle (to facilitate follicle rupture) and HCG 2,500 IU on days 3, 5, 7 after ovulation to support the luteal phase of the cycle. The fertility chart showed limited cervical mucus which did not improve despite treatment with mucus enhancing medications – carbocisteine 375mg tid for 7 days from day 11 combined with amoxicillin 500mg tid for 5 days also on day 11 of the cycle. Preseed vaginal lubricant was recommended during the fertile time to reduce vaginal acidity and hopefully improve sperm survival. See Chart Figures Patient Case A – Chart 1,2,3.

With the above treatment the woman had proven follicle rupture by ultrasound, optimum levels of progesterone (60 – 100nmol/l) and Oestradiol (400- 900 pmol/l) on day 7 after ovulation as indicated by the CrMS chart with limited but adequate cervical mucus. At this point an additional significant problem was identified. There was persistent brown bleeding during menses suggestive of a possible chronic endometritis. Antibiotic treatment was recommended for both partners using Metronidazole 400mg BD for 3 weeks and at the same time Clarithromycin 500mg BD also for 3 weeks. The probiotic supplement "Pre Bio 7" was recommended for 6 weeks to reduce the side effects of antibiotic treatment. The couple achieved their first positive pregnancy test while taking antibiotic treatment in March 2010, 1 year after they first made contact with our clinic. The female was 42 years old at the time of conception. She continued hormone support with cyclogest 400mg pv. twice daily until 8 weeks and 400mg pv nocte until 16 weeks gestation. She delivered a healthy baby boy by Caesarean section in November 2010, weighing 3180 g.

Our diagnoses for this couple were primarily

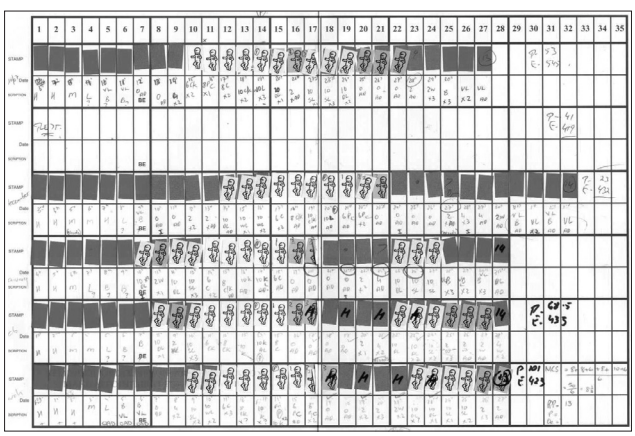
1. Chronic Endometritis
2. Progesterone deficiency – attributed to both poor follicular function and corpus luteum insufficiency
3. Hostile Cervical Mucus
4. Clinical endorphin deficiency [14]
5. Mild food intolerance

Our treatment approach was multifactorial targeting treatment in all of these areas. Working with the CrMS Chart was critically important to the process. The charting system enabled us to obtain timed blood tests for progesterone and Oestradiol on day 7 after ovulation to establish one of our main diagnoses – progesterone deficiency. Each month we repeated this blood test on day 7 after ovulation and we continued to adjust treatment until a consistent optimum surge of both progesterone and oestradiol was achieved. We had proven follicle rupture of a single mature follicle by ultrasound, but the chart critically alerted us to the ongoing problems of limited (hostile) cervical mucus as well as indicating a probable chronic endometritis causing brown bleeding for 3 days during the menstrual flow. Often this brown bleeding disappears following antibiotic treatment, but as conception occurred the improvement in her bleeding pattern was not clearly confirmed. It is clear from this case that IVF which attempted to solve the symptom of infertility through bypassing the natural process of conception was inappropriate and ineffective as she had several chronic conditions that needed to be treated in a targeted fashion to restore normal reproductive function. A restorative approach to reproduction is worthwhile at any age, but especially so for females over 40 who often respond poorly to IVF with live birth rates frequently reported at about 10% or less.

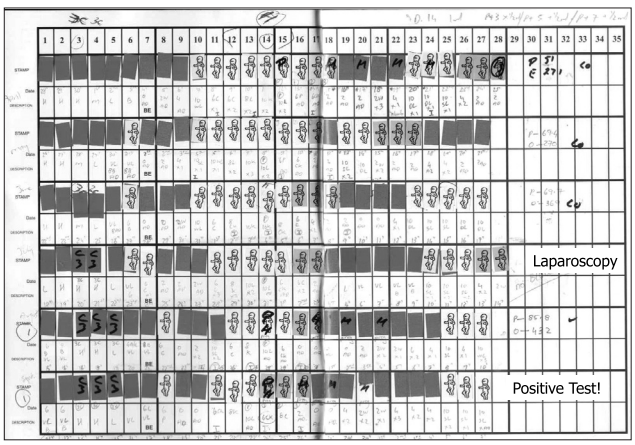
Case B

Gravida 1, Para 0, Female aged 37, Male aged 39, 7 years trying to conceive, polycystic ovaries, and recurrent implantation failure with 3 failed IVF cycles and 1 frozen transfer.

This couple presented to our clinic for fertility treatment in April 2009. They had been trying to conceive since January 2002 and previously had 1 unplanned conception and miscarriage at 11 weeks gestation in Oct 1999. The cycle length varied from 32 to 35 days each month. Previous investigations showed mild Poly-



Patient Case C – Chart 1



Patient Case C – Chart 2

cystic Ovaries. All other investigations were reported as normal, including normal semen analysis. Investigations included a laparoscopy in 2001 and 2008, Hysteroscopy in 2009, usual blood tests on day 3 and progesterone levels on day 21 of the cycle. They previously had 12 cycles of ovulation induction with clomiphene – starting with 50mg daily for 5 days on day 3 for 4 cycles, increased to 100mg for the next 4 cycles and 150mg for the final 4 cycles. She previously had ultrasound follicle tracking to monitor her response to treatment. They subsequently had 3 stimulated cycles of IVF, producing 12 to 14 follicles and transferring 2 to 3 embryos on each occasion without success between February 2006 and March 2009. They had an additional unsuccessful frozen embryo transfer of 2 embryos in June 2006. Additional investigations in the IVF clinic included a full thrombophillia screen and a peripheral blood test for natural killer cells which was normal. Despite normal results, treatment with aspirin 75mg, enoxaparin 20mg and prednisolone 25mg was given with the final IVF attempt in 2009 without success. The female was noted to have low Oestradiol levels with stimulation but no other abnormality was detected.

When this couple presented for the first time in April 2009 the treatment strategy with our system was explained and they were referred to a teacher practitioner to start recording the CrMS. Clinically the female had symptoms consistent with endorphin deficiency and she started treatment with Naltrexone 2mg nocte for 1 week followed by 3mg nocte thereafter. A blood test was arranged to measure IgG food antibodies with Cambridge Nutritional Sciences (Food Print 40) and this was found to be normal. She had elevated candida antibodies which were treated with fluconazole 150mg daily for 4 days for one cycle only. We recommended supplements with Vitamin D3 2,400 IU daily and Omega 3 2000mg daily. When the couple returned for review after 5 months the CrMS chart immediately demonstrated a late ovulation event around day 24 with a very short luteal phase consistent with corpus luteum insufficiency. The patient did not manage to have an initial blood test 7 days after ovulation as the luteal phase ranged from 6 to 7 days in length. Our working diagnosis was poor follicular function and corpus luteum insufficiency. This was treated with Letrozole 2.5mg – 10 tablets on day 3 of the cycle, increasing to 16 tablets on subsequent cycles, as indicated by both ultrasound follicle tracking and monthly blood test results for progesterone and oestradiol on day 7 after ovulation. In addition we recommended HCG 10,000 iu mid cycle to facilitate follicle rupture and HCG 2,500iu on days 3,5,7,9 after ovulation to treat the luteal phase of the cycle. Finally we added hydrocortisone 5 mg 7 am and 12 noon to treat symptoms consistent with adrenal fatigue. With treatment we achieved a normal appearing CrMS chart, with proven follicle rupture by ultrasound, and a healthy happy patient. She conceived on her 5th cycle of treatment (second effective cycle) in April 2010. We continued hormone support with cyclogest 400mg pv twice daily until 36 weeks gestation. According to the patient's wishes and her previous doctor's recommendation we continued aspirin 75mg daily until 30 weeks and Prednisolone 25mg daily until 12 weeks although tests for clotting studies and natural killer cells were reported as normal. We did not give enoxaparin. She had a normal vaginal delivery of a healthy baby boy, 3.130 Kg in January 2011. Mother was 38 years old at delivery.

Our diagnoses for this couple were primarily

1. Progesterone deficiency – with corpus luteum insufficiency
2. Polycystic Ovaries – with poor follicular function
3. Clinical endorphin deficiency
4. Clinical Adrenal fatigue [9]

Again in this case the CrMS was critical to our evaluation and successful treatment. The CrMS accurately identified corpus luteum insufficiency which was missed by all of her precious extensive investigations. An excellent treatment for this is HCG 2,500 IU on days 3,5,7,9 after ovulation to prevent premature disintegration of the corpus luteum. Timing of this treatment was made possible with the CrMS. Finally using the CrMS we could see the luteal phase return to a normal length and measure progesterone and oestradiol levels to confirm normal function. Follicle stimulation cannot treat this controversial condition and it may be the explanation for her repeated implantation failure with IVF. Clinically the patient's well being improved with naltrexone and cortisol treatment. When this happens, we often find our treatment is more successful. These treatments are very safe for both mother and baby. Although we did not feel aspirin or prednisolone were necessary we conceded to the patients request to give these medications as recommended by her previous doctor. For the next attempt we expect these treatments will be omitted.

Case C.

Gravida 1 (with IVF), Para 0, Female age 38, Male age 38, Oligoasthenozoospermia, progesterone deficiency and endometriosis. 12 cycles of clomiphene, 3 IUI 3 failed IVF.

This couple presented to our practice in January 2008 when both the male and female were aged 38 years. They had never conceived naturally after 5 years since starting to try in February 2003. The female had a 28 to 32 day cycle and low progesterone on day 21. A laparoscopy in 2003 showed mild endometriosis. It was unclear if this was treated or not at the time of surgery. Semen analysis showed oligoasthenozoospermia with counts ranging from 6 up to 17 million per ml and motility 25 – 37%. They previously had 12 cycles of ovulation induction with clomiphene, 3 attempts at IUI and 3 failed IVF attempts between Dec 2005 and April 2007. On each occasion 2 embryos were transferred. They miscarried at 9 weeks gestation with their first attempt and did not achieve implantation with the following 2 attempts. This couple had completed the CrMS chart and blood tests prior to their first consultation in January 2008. The chart showed premenstrual spotting and blood tests on day 7 after ovulation confirmed a deficiency of both progesterone (51.3nmol/l) and oestradiol (271pmol/l). (See Patient Case C, Chart 1 & 2). Clinically the female had symptoms consistent with endorphin deficiency. This was treated with Naltrexone 2mg nocte for the first week, 3mg nocte for the second week and 4,5mg nocte thereafter. A blood test was arranged for Cambridge nutritional sciences to assess IgG food antibodies (Food Print 40) and antibodies were elevated for eggs, which were eliminated from the diet. We arranged for a repeat laparoscopy to treat endometriosis (which was still present at surgery and was treated with diathermy). We achieved a normal appearing chart with optimum hormones using clomiphene 150mg daily for 3 days, starting on day 3 of the cycle with HCG 5000 iu mid cycle to facilitate follicle rupture and HCG 2,500 iu on days 3, 5 and 7 after ovulation according to the CrMS chart. With regard to the male, he had treatment [10,11] with tamoxifen 20mg daily and coenzyme Q10 200mg daily but did not have a repeat analysis to assess the impact of treatment, despite our recommendation to do this. The couple achieved a positive pregnancy test in September 2008 and the woman continued treatment with cyclogest 400mg pv nocte until 14 weeks gestation and continued Naltrexone 4.5mg nocte until 38 weeks gestation. They had a healthy baby boy by normal vaginal delivery weighing 3.400kg in June 2009, when mum was 40 years old.

They presented for a second attempt in February 2010 and with the same treatment approach successfully conceived by September. The estimated date of delivery is 19th May 2011 when mum will be 42 years old.

Our main diagnoses were

1. Endometriosis
2. Oligoasthenozoospermia
3. Clinical endorphin deficiency
4. Low progesterone and oestradiol – combined poor follicle function and corpus luteum insufficiency
5. Food Intolerance to eggs

Again the CrMS chart demonstrated premenstrual spotting indicating a problem with endometrial integrity in the luteal phase of the cycle. This was corrected with HCG 2,500 IU on days 3, 5, 7 after ovulation. It is important to adequately treat mild endometriosis as this has been shown to improve pregnancy and live birth rates [12]. We refer to gynaecologists who have a special interest in treating endometriosis. They apply a technique of "Near Contact" laparoscopy [13] to thoroughly evaluate and treat all endometrial implants. It is unclear if this was adequately performed with her previous laparoscopy. When dealing with male factor infertility, one of the best things you can do is to optimise female fertility. In addition treatments such as tamoxifen and co enzyme Q10 can be helpful. We did not get an opportunity to assess the impact of treatment on semen parameters despite our request to have this rechecked. It is difficult to determine the full impact of IgG antibody testing. At this point we do not have published studies we can reference to support this approach[8]. We have observed in clinical practice that women often feel better and respond more favourably to treatment when antibody producing foods are eliminated from the diet. On this basis it seams reasonable to recommend while admitting further scientific evaluation of this strategy is needed. We continued Naltrexone[14] throughout pregnancy in this case because the patient felt dramatically better preconception with treatment. It appears she had significant endorphin deficiency and going on past experience, stopping naltrexone will result in a deterioration of her health and in that situation pregnancy may be adversely affected. We have given naltrexone safely in pregnancy to over 100 women since 2005 and have found the children do very well post delivery with no ill effects. Mothers report their children are healthy and thriving following exposure to naltrexone in utero. When measuring progesterone levels throughout pregnancy we have observed that women who require naltrexone and take it have better progesterone levels compared those who are not treated. Optimum progesterone levels result in more favourable birth outcomes.

DISCUSSION

Infertility is not a diagnosis but is often the expression of several underlying ill health conditions which if diagnosed and treated correctly will result in restoration of normal reproductive function. Physicians ought to consider broader diagnostic possibilities in their evaluation of infertile couples. A multifactorial treatment strategy for the chronic condition of infertility may be more effective than the widespread acute strategy employed by ART, with likely healthier outcomes.

This paper looks at 3 case studies to demonstrate the principles of a restorative approach to the chronic problem of infertility using NPT. Future studies will need to look at a cohort of larger numbers prospectively. The appropriate evidence to consider for evaluation of a chronic illness is a cohort study which looks at cumulative outcomes over time and gives a more complete picture of the condition being studied. An acute approach looks at short term outcomes only and does not lend itself so well to assess for cumulative outcomes over time. This is potentially misleading and will miss important data. Interestingly Case C above had a miscarriage at 9 weeks gestation following a previous IVF procedure. This was a clinical pregnancy following embryo transfer and recorded as a success by the IVF clinic even though the couple did not have a live birth. A cohort analysis would identify this and give better information regarding outcomes.

NaProTechnology	Artificial Reproductive Technology
Twins – 4.5 %	Twins > 20 %
Low birth weight <5%	Low Birth weight 30%
Premature Delivery = normal rate	Premature Delivery increased 2 fold
J Amer Board Fam Med, 2008[3]	*Obstet Gynecol* 2004 and *NEJM* 2002[15,16,17]

Fig. 5

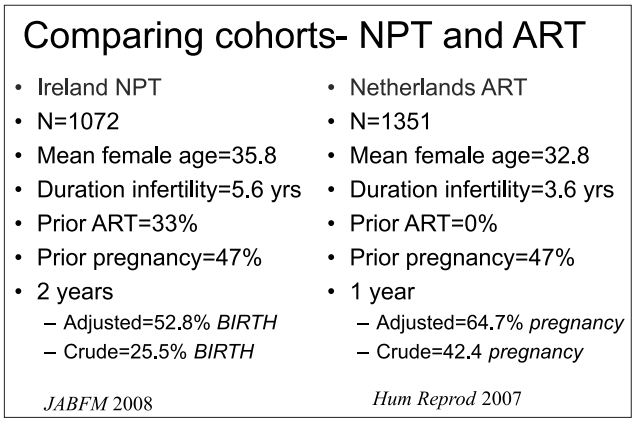


Fig. 6

We have previously published one cohort study of NPT that supports the above conclusions across a broad range of all couples presenting for treatment.[3] There are very few IVF cohort studies that we could compare our previous data with, but one published study from the Netherlands in 2007[18] was similar to our group, see fig 6. Each study looked at over 1000 patients, but the NPT population was more challenging with more advanced female age, longer duration of infertility and many with a history of failed IVF, compared to no previous failed IVF in the Dutch group. Despite this our outcomes were broadly similar with the IVF data coming out a little better as you would expect considering the less challenging group of patients they treated. Importantly the IVF group reported a clinical pregnancy rate rather than live birth rate. A significant number of these clinical pregnancies do not result in live births. Future studies examining NPT and ART must be cohort studies comparing populations with similar patient characteristics and reporting live birth outcomes.

In the UK (HFEA), Europe (ESHRE) and the USA (SART and CDC) all data collection registries have data in terms of treatment *cycles.* It is unknown what number of women have been treated and it is unknown how many cycles of IVF each woman has had.

This is despite recommendations from the Cochrane Database [19] that outcomes should be reported as *pregnancy rates per woman or couple*, because repeat cycle data are not statistically independent and are less relevant to the patient. According to Cochrane, the effectiveness of IVF relative to other treatment options for unexplained infertility remains unproven. Adverse events and the costs associated with the interventions compared have not been adequately assessed. In couples without clear indications for IVF, the main benefit of early IVF may be to shorten time to pregnancy, a benefit that must be weighed against costs and potential adverse outcomes [20].

CONCLUSION

Infertility can be treated successfully with a multifactorial approach which takes into account the chronic nature of infertility and targets treatment to manage multiple factors responsible for the condition. NPT seeks to diagnose all underlying causes of infertility and all possible exacerbating and mitigating factors. ART by contrast is less concerned about the diagnosis except for factors that may directly impact the effectiveness of IVF. Ultimately NPT seeks to optimise health of baby, mother and father whereas ART seeks to achieve a

pregnancy as quickly as possible at almost any cost. One could anticipate that NPT should give more favourable pregnancy outcomes with a lower incidence of miscarriage, premature delivery, low birth weight and perinatal mortality. This appears to be supported by our data looking at pregnancy outcomes from 1998 – 2002 using NPT in Galway, Ireland[3] and comparing these outcomes with IVF outcomes[15,16,17]. See Fig 5. The incidence of multiple pregnancy, low birth weight and premature delivery is much more favourable following NPT treatment compared to ART.

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NAPROTECHNOLOGIJA (NATŪRALI PROKREACIJOS TECHNOLOGIJA) – ĮVAIRIAPUSIS POŽIŪRIS Į LĖTINĘ NEVAISINGUMO PROBLEMĄ

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Raktažodžiai: nevaisingumas, nevaisingos poros, NPT, NaProTechnologija, in Vitro fertilizacija, PAB, asistuojamos reprodukcinės technologijos, kohortinė studija.

Santrauka

Apibrėžimas. Nevaisingumą dažniausiai sukelia daugybinės lėtinės priežastys, o ne viena ūmi būklė. Mes teigiame, kad yra klaidinga skirti medicininės intervencijas lėtinės prigimties ligai.

Metodai. Retrospektyvinė 3 klinikinių atvejų analizė, rodanti daugialypę ir lėtinę nevaisingumo kilmę, kurias anksčiau nesėkmingai buvo bandyta gydyti tokiomis intervencijomis kaip IVF (in vitro fertilizacija) ar PAB (pagalbiniai apvaisinimo būdai).

Rezultatai. Įvairiapusio požiūrio ir 3 sėkmingų nėštumų ir gimdymų, panaudojus NPT (Natūralią Prokreacinę Technologiją arba NaPro), demonstravimas.

Išvados. Nevaisingumas gali būti sėkmingai gydomas, jei jis traktuojamas įvairiapusiškai, t.y. įvertinus lėtinę nevaisingumo kilmę gydoma daugybiniai veiksniai, sukėlę nevaisingumą.

Diskusija. Nevaisingumas nėra diagnozė, bet dažnai yra keleto sveikatos sutrikimų išraiška, kurią nustačius ir gydant teisingai, galima atstatyti normalią reprodukcinę funkciją. Gydytojai turėtų remtis platesnėmis diagnostikos galimybėmis tirdami nevaisingas poras. Įvairiapusė lėtinio nevaisingumo gydymo strategija galėtų būti efektyvesnė nei plačiai paplitę PAB, bet tam reikalingi išsamesni tyrimai. Tolesnės studijos, vertinančios NPT ir PAB rezultatus, turėtų būti kohortinės, lyginančios panašios grupės pacientus.

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